THE

AMERICAN JOURNAL

OF THE

MEDICAL SCIENCES.

No. VIII.—August, 1829. 35

COLLABORATORS.

JACOB BIGELOW, M. D. *Professor of Materia Medica in Harvard University, Boston.*

WALTER CHANNING, M. D. *Professor of Midwifery and Legal Medicine in Harvard University, Boston.*

N. CHAPMAN, M. D. *Professor of the Institutes and Practice of Physic and Clinical Practice in the University of Pennsylvania.*

JOHN REDMAN COXE, M. D. *Professor of Materia Medica and Pharmacy in the University of Pennsylvania.*

WILLIAM C. DANIELL, M. D. *of Savannah, Georgia.*

J. B. DAVIDGE, M. D. *Professor of Anatomy in the University of Maryland.*

E. DE BUTTS, M. D. *Professor of Chemistry in the University of Maryland.*

WILLIAM P. DEWEES, M. D. *Adjunct Professor of Midwifery in the University of Pennsylvania.*

S. HENRY DICKSON, M. D. *Professor of the Institutes and Practice of Medicine in the Medical College of South Carolina.*

BENJAMIN W. DUDLEY, M. D. *Professor of Anatomy and Surgery in Transylvania University.*

GOUVERNEUR EMERSON, M. D. *of Philadelphia.*

THOMAS FEARN, M. D. *of Alabama.*

JOHN W. FRANCIS, M. D. *Professor of Obstetrics and Forensic Medicine in Rutgers Medical College, New York.*

WILLIAM GIBSON, M. D. *Professor of Surgery in the University of Pennsylvania.*

JOHN D. GODMAN, M. D. *late Professor of Anatomy and Physiology in Rutgers Medical College, New York.*

R. E. GRIFFITH, M. D. *of Philadelphia.*

E. HALE, M. D. *of Boston.*

ROBERT HARE, M. D. *Professor of Chemistry in the University of Pennsylvania.*

ISAAC HAYS, M. D. *one of the Surgeons of the Pennsylvania Infirmary for diseases of the Eye and Ear.*

GEORGE HAYWARD, M. D. *of Boston.*

THOMAS HENDERSON, M. D. *Professor of the Theory and Practice of Medicine in the Columbian College, District of Columbia.*

WILLIAM E. HORNER, M. D. *Adjunct Professor of Anatomy in the University of Pennsylvania.*

DAVID HOSACK, M. D. *Professor of the Institutes and Practice of Medicine in Rutgers Medical College, New York.*

ANSEL W. IVES, M. D. *of New York.*

SAMUEL JACKSON, M. D. *Assistant to the Professor of the Institutes and Practice of Medicine and Clinical Practice in the University of Pennsylvania.*

SAMUEL JACKSON, M. D. *of Northumberland, Pennsylvania.*

W. J. MACNEVEN, M. D. *Professor of Therapeutics and Materia Medica in Rutgers Medical College, New York.*

C. B. MATTHEWS, M. D. *of Philadelphia.*

VALENTINE MOTT, M. D. *Professor of Surgery in Rutgers Medical College, New York.*

JAMES MOULTRIE, JR. M. D. *of Charleston, S. C.*

REUBEN D. MUSSEY, M. D. *Professor of Anatomy and Surgery in Dartmouth College.*

JAMES M. PENDLETON, M. D. *Lecturer on Midwifery and Diseases of Women and Children, New York.*

PHILIP SYNG PHYSICK, M. D. *Professor of Anatomy in the University of Pennsylvania.*

NATHANIEL POTTER, M. D. *Professor of the Theory and Practice of Medicine in the University of Maryland.*

THOMAS SEWALL, M. D. *Professor of Anatomy and Physiology in the Columbian College, District of Columbia.*

JOHN WARE, M. D. *of Boston.*

JOHN C. WARREN, M. D. *Professor of Anatomy and Surgery in Harvard University, Boston.*

J. WEBSTER, M. D. *Lecturer on Anatomy and Surgery, Philadelphia.*

N. W. WORTHINGTON, M. D. *Professor of Materia Medica in the Columbian College, District of Columbia.*

THOMAS H. WRIGHT, M. D. *Physician to the Baltimore Alms-House Infirmary.*

TO READERS AND CORRESPONDENTS.

Communications have been received from Professors MUSSEY and HORNER, and from Drs. MIGHELS, of Cumberland County, Maine; JACKSON, of Northumberland County, Pennsylvania; and HENDERSON, of Huntingdon County, Pennsylvania.

Dr. RANDOLPH's case of excision of the lower jaw, will appear in our next, with a plate.

We have received the following works:—

Traité Général d'Anatomie Comparée. Par J. F. MECKEL, traduit de l'Allemand et augmenté de notes, par MM. RIESTER et ALPH. SANSON, D. M. P. Tome troisieme. 1re Partie. Paris, 1829, (from the publishers.)

Cours de Physiologie Générale et Comparée Professé à la Faculté des Sciences de Paris. Par M. DUCROTAY DE BLAINVILLE, Membre de l'Institut. Publié par les soins de M. le Docteur HOLLARD, et revue par l'auteur. Livraison 1re et 2e, (from the publishers.)

Napoléon a Sainte-Hélène. Opinion d'un Médecin sur la Maladie de l'Empereur Napoléon et sur la Cause de sa Mort; offerte a son fils au jour de sa majorité. Par J. Héreau, ancien Chirurgien ordinaire de Madame Mère, et premier chirurgien de l'Impératrice Marie-Louise. Paris, 1829, (from the author.)

Journal des Progrès des Sciences et Institutions Médicales en Europe en Amerique, &c. Vol. XIII, (in exchange.)

Annales de la Médecine Physiologique, October, 1828, and January, February, March, 1829, (in exchange.)

Revue Médicale, November, 1828, (in exchange.)

Bulletin des Sciences Médicales, October, 1828, (in exchange.)

Journal Universel, November, 1828, January, February, March, April, 1829, (in exchange.)

Journal Général de Médecine, December, 1828, January, February, March, April, 1829, (in exchange.)

Nouvelle Bibliothèque Médicale, January, February, 1829, (in exchange.)

Archives Générales de Médecine, February, March, April, 1829, (in exchange.)

Journal der Chirurgie und Augen Heilkunde, herausgegeben von C. F. V. GRAEFE und PH. V. WALTHER. Band. XII. Stück 1, 2, 3, (in exchange.)

Litterarische Annalen der Gesammten Heilkunde. Herausgegeben von Dr. J. F. C. Hecker. December, 1828, and January, February, 1829, (in exchange.)

Gemeinsame deutsche Zeitschrift für Geburtskunde. Herausgegeben durch D. W. H. Busch, L. Mende, und F. A. Ritgen. Band III. Heft 3, und Band IV. Heft 1, (in exchange.)

Notizen aus dem Gebiete der Natur und Heilkunde gesammelt und mitgetheilt. Von Ludwig, Fr. von Froriep, August to December, 1828, and January to March, 1829.

The Medico-Chirurgical Review, for April, 1829, (in exchange.)

The London Medical and Surgical Journal, April, May, June, 1829, (in exchange.)

The London Medical and Physical Journal, March, April, May, June, 1829, (in exchange.)

The London Medical Gazette, March, April, May, 1829, (in exchange.)

Boston Medical and Surgical Journal, Vol. II. Nos. 10 to 21, inclusive, (in exchange.)

The Transylvania Journal of Medicine, and the Associate Sciences, May, 1829, (in exchange.)

The North American Medical and Surgical Journal, July, 1829, (in exchange.)

The New York Medical and Physical Journal, April, 1829, (in exchange.)

For the gratification of our contributors we continue the references to the works, in which they will find notices of their communications; these references are, of course, restricted to the Journals received during the preceding three months.

Professor Physick's Case of Cough from Elongation of the Uvula is noticed in the London Medical and Physical Journal, for June, 1829.

Professor Chapman's paper on Emetics in Hæmorrhage is copied into the London Medical and Surgical Journal, for April, 1829.

Professor Mott's Case of Calcareous Degeneration of the Scrotum is noticed in the Archives Générales, for February, 1829; and his Case of Excision of an Osteo-Sarcomatous Clavicle in the Medico-Chirurgical Review, for April, 1829, the London Medical Gazette, for February, 1829, and Froriep's Notizen, for December, 1828.

Professor Dewees's paper on Ergot is noticed in the Archives Générales, for May, 1829.

Professor Gibson's Case of Axillary Aneurism is noticed in the London Medical and Physical Journal, for April, 1829, and Froriep's Notizen, for Dec. 1828.

Dr. Jackson's Case of Amnesia is copied into the London Medical and Surgical Journal, for June, 1829.

Dr. Stedman's Case of Bleeding in the Radial Artery in a case of Apoplexy is noticed in the Annaire Medico-Chirurgical, for 1827.

Dr. Mitchell's Experiments on the Corpora Lutea are noticed in the Archives Générales, for February, 1829.

Dr. Pennock's Experiments on the Effect of Cupping-glasses in Poisoned Wounds are noticed in the Archives Générales, for February, 1829.

Dr. Mauran's Case of Malformation of the Heart is noticed in the Archives Générales, for February, 1829.

Dr. Drake's Experiments on the Respiration of Cool air in Pulmonary Diseases are analyzed in the Medico-Chirurgical Review, for April, 1829, and Froriep's Notizen, for January, 1829.

Dr. Heiskell's Case of Extra-Uterine Fœtation is copied into the Nouvelle Bibliothèque Médicale, for January, 1829.

Dr. Levert's Experiments on Metallic Ligatures are noticed in the Boston Medical and Surgical Journal, for June, 1829.

Dr. Washington's Case of Gunshot Wound is copied into Froriep's Notizen, for August, 1828.

Authors of new medical books, desirous of having them reviewed or noticed in this Journal at the earliest opportunity, are invited to transmit to the Editors a copy as soon after publication as convenient, when they will receive prompt attention. Under ordinary circumstances, very considerable delay is caused by the circuitous routes through which they are received.

Papers intended for publication, should be sent, *free of expense*, as early after the appearance of the Journal as possible, in order to be in time for the ensuing number. Such communications should be addressed to "Carey, Lea & Carey, Philadelphia, for the Editors of the American Journal of the Medical Sciences." All letters on the *business* of the Journal to be addressed exclusively to the publishers.

CONTENTS.

ORIGINAL COMMUNICATIONS.

ESSAYS.

Art.		Page.
I.	On the Means of affording Respiration to Children in Reversed Presentations. By Jacob Bigelow, M. D. Professor of Materia Medica in Harvard University	285
II.	Notice of an Epidemic that prevailed in Savannah, Georgia, during the Summers of 1826 and 1828. By W. C. Daniell, M. D. of Savannah, Georgia	291
III.	Case of Acute Gastritis, supervening upon Chronic, arising from Intemperance, and attended with Arachnitis of the Cerebrum. By W. E. Horner, M. D. Adjunct Professor of Anatomy in the University of Pennsylvania. [With a plate.]	294
IV.	Observations on Entropion, with a Case. By Samuel Jackson, M. D. of Northumberland	297
V.	On the Internal Use of the Spirit of Turpentine in Incarcerated Hernia. By Thomas Sewall, M. D. Professor of Anatomy and Physiology in the Columbian College, District of Columbia	301
VI.	Account of the Small-pox Epidemic in Western Pennsylvania. By L. Callaghan, Licentiate of the Faculty of Physicians and Surgeons, and Member of the Faculty of Medicine of Glasgow	302
VII.	Perforation of the Stomach, without Ulceration or Softening of its Coats. By Leonard Peirce, M. D. of Sutton, Massachusetts	305
VIII.	Some Observations on Wounds of the Heart. By John Redman Coxe, M. D. Professor of Materia Medica and Pharmacy in the University of Pennsylvania	307
IX.	Inquiry into the Causes, Nature, and Treatment of Hernia Cerebri. By J. W. Heustis, M. D. of Cahawba, Alabama	315
X.	Method of treating Fracture of the Thigh Bone. By William C. Daniell, M. D. of Savannah, Georgia. [With a plate.]	330
XI.	Remarkable Urinary Calculus. By R. D. Mussey, M. D. Professor of Anatomy and Surgery in the Medical Institution at Dartmouth College, Hanover, N. H. [With a plate.]	333
XII.	Reports of Cases treated in the Baltimore Alms-house Infirmary. By Thomas H. Wright, M. D. Physician to the Institution	337
XIII.	Cases of Cynánche Trachealis. By Samuel Jackson, M. D. Assistant to the Professor of the Institutes and Practice of Medicine and Clinical Practice in the University of Pennsylvania	361

XIV. Meteorological Observations made in the City of Philadelphia, latitude 39° 57′, and on the Island of Tinicum, eleven miles south-west from Philadelphia, latitude 39° 48′ for the year 1826. By George F. Lehman, M. D. Lazaretto Physician of the Port of Philadelphia - - - 370

MEDICAL LITERATURE.

XV. Memoir of the Life and Writings of the late Colin Chisholm, M. D., F. R. S. &c. &c. formerly Inspector General of Ordnance Hospitals in the West Indies - - - - - - - - - - - - - 394

REVIEW.

XVI. Recherches Anatomiques, Pathologiques et Thérapeutiques sur la Maladie connue sous les noms de Gastro-entérite, Fièvre Putride, Adynamique, Ataxique, Typhoid, etc. etc. Comparée avec les Maladies Aigues les plus Ordinaires. Par P. Ch. A. Louis, Docteur en Médicine des Facultés de Paris et de St. Petersbourg, Membre de l'Académie Royale de Médecine, Correspondant de l'Académie Imperiale Medico-Chirurgicale de St. Petersbourg, de celle de Marseille, chef de Clinique de la Faculté de Médecine de Paris, etc. etc. Two vols. oct. pp. 989. Paris, 1829 - - - - - - - - - - - - - - 403

BIBLIOGRAPHICAL NOTICES.

XVII. Encyclopädisches Wörterbuch der medicinischen Wissenchaften. Herausgegeben von der Professoren der medicinischen Facultät zu Berlin; C. F. von Græfe, C. W. Hufeland, H. F. Link, K. A. Rudolphi, E. von Siebold. Erster band. 8vo. pp. 675. Berlin, 1828 - - - 443

XVIII. Pathological Researches into the Nature and Treatment of Dropsy of the Brain, Chest, Abdomen, Ovarium, and Skin; in which are demonstrated the Inflammatory Origin of these Diseases, and the General Facility of their Cure under a new and greatly Improved Method of Treatment. By Joseph Ayre, M. D. Member of the Royal College of Physicians, &c. London, 8vo. pp. 287 - - - - - - - - 444

XIX. Napoléon a Sainte-Hélène. Opinion d'un Médecin sur la Maladie de l'Empereur Napoléon et sur la Cause de sa Mort, offerte a son fils au jour de sa majorité. Par J. Héreau, Ancien Chirurgien ordinaire de Madame Mère et Premier Chirurgien de l'Impératrice Marie-Louise. Paris, 1829, pp. 228, 8vo - - - - - - - - - - - - 448

XX. Recherches Anatomiques et Physiologiques sur les cas d'uterus double et de Superfœtation. Par A. L. Cassan. Paris, 1826, pp. 84. 452

XXI. Illustrations of the Diseases of the Breast, (Female.) By Sir Astley Cooper, Bart., F. R. S., Sergeant Surgeon to his Majesty, &c. &c. In two parts. Part 1st, pages 89, quarto. Plates IX. London, 1829 - 453

XXII. Journal of the Philadelphia College of Pharmacy. Edited by Benjamin Ellis, M. D. Professor of Materia Medica and Pharmacy in the College, &c. Assisted by a publishing committee, consisting of D. B. Smith, C. Ellis, S. P. Griffitts, Jr. and G. B. Wood, M. D. Professor of Chemistry in the College, &c. Published by the College. Philadelphia, 1829, Nos. 1 and 2 - - - - - - - - - - - - - 454

XXIII. Elements of Medical Statistics, containing the substance of the Gulstonian Lectures, delivered at the Royal College of Physicians. With numerous additions, illustrative of the comparative salubrity, longevity, mortality, and prevalence of diseases in the principal countries and cities of the civilized world. By F. Bisset Hawkins, M. D. of Exeter College, Oxford; Fellow of the Royal College of Physicians, and Physician to the Westminster General Dispensary. London, 1829, pp. 234. 8vo. - 458

XXIV. Observations on the Nature and Treatment of Cholera, and on the Pathology of the Mucous Membranes. By Alexander Turnbull Christie, M. D. Madras Medical Establishment, and lately in Medical Charge of the Civil Department in the Southern Mahratta Country. Edinburgh, 1828, pp. 137. 8vo. - - - - - - - - - - - 463

XXV. Journal des Progrès des Sciences et Institutions Médicales en Europe, en Amérique, &c. Tome XII. Paris, 1828 - - - - - 472

QUARTERLY PERISCOPE.

FOREIGN INTELLIGENCE.

Anatomy.

1. Absence of the Thymus Gland. By Dr. Harrington - - Page 473

2. Zonula Zinnii in the Human Eye. By Professor M. J. Weber *ib.*

3. Anterior Termination of the Retina. By Dr. Schneider - Page 474

Physiology.

4. On the supposed Existence of Active Molecules in Mineral Substances. By Robert Bakewell, Esq. - - - - - 474

5. Case of Five Children at a Birth, furnished by Dr. Weiss, and communicated to the Clinic by M. Carus - - - - - 476

6. Case of a child born with a Tumour of considerable size upon the Occiput, with Parencéphalocele. By M. Brouissaux, (Leger,) M. D. - - - - *ib.*

7. Superfœtation in a Double Uterus. By Dr. Duges - . 477

8. Destruction of the Right Hemisphere of the Brain, with Hemiplegia of the left side, the Intellect unimpaired - - 477

9. Case of Anaesthesia or loss of Sensation, unattended with corresponding loss of Motion. By Alexander Reid, Esq. - *ib.*

10. On the Physiological Effects of Oxygen Gas upon the Animal System. By S. D. Broughton, Esq. - - - - - - 479

11. Silver found in the Viscera of a Person who had used the Nitrate of Silver. By Dr. Wedemeyer - - - - - *ib.*

12. Functions of the Intestinal Canal and Liver in the Human Fœtus. By Dr. Lee - - 480

Pathology.

13. Case of Colica Pictonum. By Edward Barcome, Esq. With remarks by Staff-Surgeon Doyle 480

14. Rare Species of Dysphagia. By Dr. Mugna - - - 483

15. Dropsy of the Pericardium. By F. W. Wood, Esq. - 484

16. Inflammation of the Umbilical Vein with Infantile Erysipelas. By Robert Lee, M. D. - *ib.*

PAGE.

17. Perforation of the Stomach, with Peritoneal Inflammation, where no Symptoms indicative of previous Disease existed. By John Abercrombie, M. D. - 485
18. Ulcer of the Stomach fatal by Hæmorrhage. By John Abercrombie, M. D. - - - 486
19. Ulceration of the Stomach fatal by Perforation. By John Abercrombie, M. D. - - *ib.*
20. Perforating Ulcer of the Stomach, and communication with the Arch of the Colon. By John Abercrombie, M. D. - - 487
21. Involuntary Periodical Drunkenness. By M. Pierquin - 487
22. Case of extraordinary Universal Emphysema. By Dr. Jahn. 488
23. Case of Coma which lasted Fifteen Months. By Dr. Bischoff 489
24. Rupture of the Heart. By Dr. Bignardi - - - - 490
25. Disease of the Heart - 491
26. Satyriasis. By M. Chauffard *ib.*
27. Hernia of the Lungs from Tight Stays. By M. Breschet *ib.*
28. Cynanche Tonsillaris. By Dr. Watson - - - - 492

MATERIA MEDICA.

29. Mode of Exhibition of Copaiba - - - - - - 492
30. Anti-asthmatic Effects of the Tincture of Lobelia Inflata. By Mr. W. B. Andrews - - *ib.*
31. New Mode of using Iodine. By M. Pelletan - - - 492
32. Rhubarb Plant - - *ib.*

PRACTICE OF MEDICINE.

33. Case of Pneumathorax in which an operation was unsuccessfully performed. By James Johnson, M. D. - - - 493
34. Case of Pneumathorax in which an Operation was successfully performed. By John Davy, M. D. - - - - - 495
35. Case in which two ounces of Sulphuric Acid was Swallowed. By J. Orr, Esq. - - *ib.*
36. On the Treatment of Intermittent Fevers by the Sulphate of Quinine, applied to a denuded Surface of the Skin. By Professor C. Speranza - - 496
37. Remarkable Case of Abdominal Dropsy. By Dr. Bardsley 497
38. Ergot of Rye in Chronic Uterine Discharges. By Dr. Marshall Hall - - - - *ib.*
39. On the Utility of Cold Affusion in Cases of Poisoning by Hydrocyanic Acid. By Dr. E. F. G. Herbst - - - - 497
40. Vapour of Iodine for the cure of Consumption. By Dr. Berton - - - - - - 498
41. Treatment of Burns by the Application of Flour. By J. Marshall, Esq. - - - *ib.*
42. Observations on the Blood. By Dr. Davy - - - *ib.*
43. On Chlorine in Hydrophobia. By Drs. Semmola and Schœnberg - - - - - - 500
44. Angina Tonsillaris, Variolous Angina, and Œdema of the Glottis, cured by Insufflation of finely powdered Alum. By A. Laennec - - - - - *ib.*
45. Gonorrhœa - - - *ib.*
46. On Small Doses of Oil of Turpentine for the cure of Sciatica and other Neuralgiæ. By M. Martinet, M. D. - - - *ib.*

OPHTHALMOLOGY.

47. On Complete Inversion of the Eyelids. By Mr. Stratford - 501
48. Cataract completely formed in a few hours. By Dr. Wendelstrom - - - - - 502
49. Ossification of the Vitreous Humour. By M. Kuhn - - 502
50. On the Operation for Cataract. By Dr. Zeuschner - - 503

Surgery.

Page.

51. Compound Fracture of the Olecranon. By H. Earle, Esq. 504
52. Sinuses in the Region of the Pelvis. By James Syme, Esq. 505
53. Case in which the operation of Lithotritie was successfully performed. By Robert Liston, Esq. - - - - - - 506
54. Œdema of the Glottis relieved by Tracheotomy. By M. Chomel - - - - - - 507
55. Case of Hernia, in which a Fold of Intestine was contained in a Sac between the Abdominal Muscles and the Peritoneum. By Henry Earle, Esq. - 507
56. On the Reduction of Hernia. By M. Dupuytren - - 509
57. On Secondary Hæmorrhage. By Mr. Hodgson - - 510
58. Ununited Fracture of the Femur, successfully treated by the Seton. By Dr. Dohldorf - *ib.*
59. Extirpation of a Cancerous Tumour situated in the Interior of the Rectum: Cure. By M. Maurin 511
60. Treatment of Elephantiasis. By M. Lisfranc - - - *ib.*

Midwifery.

61. Case of Expulsion of the Placenta, three months after Abortion. By Mr. Thornton 511
62. Delivery of a Fœtus through the Abdominal Parietes. By Dr. Müller - - - - - 512
63. Six successive Hip Presentations in the same Individual *ib.*
64. Hip Presentations - - 513

Medical Jurisprudence.

65. Case of Poisoning with Nux Vomica. By Dr. Basedow - 513
66. Case of Poisoning with Nux Vomica. By Mr. Baynham - *ib.*
67. Case of Suicidal and Infanticidal Mania - - - - - 514
68. Injury from Sulphuric Acid. By Robert Christison, M. D. 515
69. Chemical Analysis of various Articles of Dress, in order to ascertain the nature of Fluid poured upon them. By Drs. Christison and Turner - - - 516
70. Alleged attempt to effect Abortion - - - - - 517
71. Two Cases in which the External Application of Corrosive Sublimate proved fatal. By John Ward, Esq. - - - - 520

Chemistry.

72. On Supposed Artificial Diamonds. By M. Thenard - 521
73. Preparation of Hydriodic Acid *ib.*
74. Preparation of Iodine. By M. Souberan - - - - - *ib.*
75. On Phosphoric Acid in Potash. By M. Kobell - - 522
76. On Nitrate of Silver as a test for Animal Matter. By Dr. Davy *ib.*

Miscellaneous.

77. Yellow Fever - - - 522
78. On Small-Pox. By Dr. George Gregory - - - - - 526
79. Report of the Council of Health of the City of Paris for the year 1827 - - - 528
80. On Feigned Diseases of the Heart. By Dr. Quarrier - 529
81. On Phrenology. By Dr. Elliotson - - - - - *ib.*

AMERICAN INTELLIGENCE.

PAGE.

Mercury detected in Swaim's Panacea by Chemical Analysis. By R. Hare, M. D. Professor of Chemistry in the University of Pennsylvania. (Communicated in a letter to Dr. Hays) - 530

Congenital Hydrocephalus, forming a Cyst on the Back of the Head, containing the Posterior Lobes of the Cerebrum: Water evacuated by Puncture of the Brain. By W. E. Horner, M. D. Adjunct Professor of Anatomy in the University of Pennsylvania - - - - - - *ib.*

A Case of Prolapsus Uteri. By Samuel B. Toby, M. D. of Providence, R. I. (Communicated in a letter to William M. Fahnestock, M. D.) - - - 532

On Muriate of Lime in Paralysis of the Lower Extremities. By Alexander Somervail, M. D. of Essex County, Virginia - *ib.*

A Case of Glossitis, attended with alarming symptoms of Suffocation, successfully removed by deep incisions made into the substance of the Tongue. Communicated by A. Hopton, M. D. of Clinton, North Carolina 533

The Operation of Laryngotomy and Tracheotomy performed at the same time, and on the same subject for the removal of an extraneous body from the Larynx. By Abner Hopton, M. D. 534

Of the Precipitation of Morphia from Laudanum by Ammonia; also of a Spontaneous Deposition of Narcotin. By R. Hare, M. D. Professor of Chemistry in the University of Pennsylvania 535

Dissection of a Case of Peritoneal Dropsy. Communicated by John D. Godman, M. D. - - *ib.*

Extirpation of Cancer of the Uterus. By J. P. Warren, M. D. Professor of Anatomy and Surgery, Harvard University - 536

Operation for Artificial Urethra. By Dr. Warren - - - 537

Case of Paralysis from Fracture, in which a part of the Spinous Processes of two Vertebræ, half of the third, and the whole of the fourth, were removed by an operation, with partial success. By Alban G. Smith, M. D. of Danville, Kentucky - - *ib.*

Anatomico-Surgical Drawings and Descriptions of all Surgical Operations, according to the most approved methods. By L. J. von Bierkowsky - - - *ib.*

Addresses by J. D. Godman M. D. 538

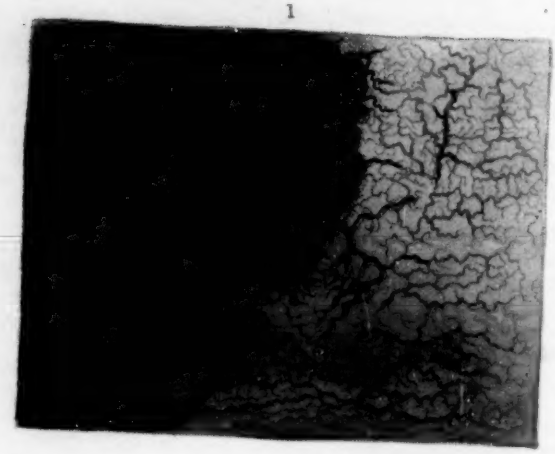
A Treatise on Pathological Anatomy. By W. E. Horner, M. D. Adjunct Professor of Anatomy in the University of Pennsylvania *ib.*

Edwards's and Vavasseur's Materia Medica and Pharmacy; translated by J. Togno, M. D. & E. Durand - - - - - *ib.*

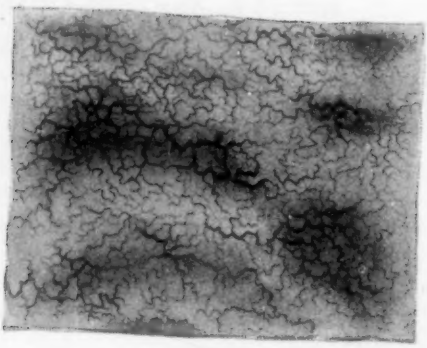
NECROLOGY - - - - - *ib.*

INDEX - - - - - - 541

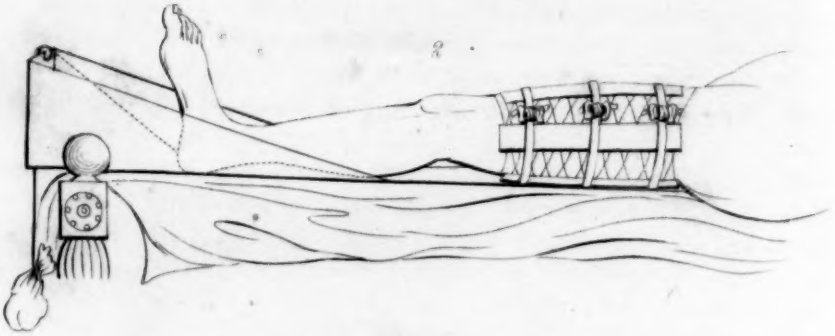
1



2



Drawn from nature. & Eng'd. by J. Drayton



Eng'd by J.Drayton.

THE

AMERICAN JOURNAL

OF THE

MEDICAL SCIENCES.

ART. I. *On the Means of affording Respiration to Children in Reversed Presentations.* By JACOB BIGELOW, M. D. Professor of Materia Medica in Harvard University.

IT is familiar to obstetric practitioners, and is noticed by most writers on midwifery, that in those cases of labour in which the body of the child is delivered before the head, a considerable degree of danger exists in regard to the life of the child. Rules for the conduct of such cases are laid down by writers, yet it cannot be denied that, in the hands even of skilful practitioners, many children which are alive when the body is expelled, are irrecoverably lost before the head can be extracted. In these cases death takes place because the connexion with the mother is interrupted, by compression of the cord, or detachment of the placenta, before a communication with the atmosphere is effected.

It is the object of the present paper to show, that in many such cases the life of the child may be saved, by forming a communication between the mouth and the atmosphere, previous to the delivery of the head.

After the body is expelled, if the head can be seasonably delivered, either by the recurrence of pains, or by the successful efforts of the practitioner, no difficulty ordinarily occurs. But this desirable state of things cannot always be realized. Too frequently the size of the head, and the resistance of the pelvis or soft parts, renders the delivery difficult and hazardous, and the practitioner in the midst of his efforts, is apprised by a convulsive jerk or spring of the body, that a state of extreme danger exists, and that the time has come at which the child must breathe or will speedily die. If at this period the fingers be introduced, so as to reach the mouth of the child, it

will be perceived that each jerk of the body is attended with a gasp, and convulsive effort at inspiration, performed by the mouth and chest of the child. In this state of things, if air be conveyed to the mouth of the child it will immediately breathe, and the efforts of nature, as will hereafter be shown, may in most cases be safely waited for to assist in expelling the head.

The method to be pursued in conveying air to the mouth, depends upon the situation of the head. If the chin has descended low in the pelvis, so that the mouth rests upon the perinæum or lower part of the sacrum, and can be readily reached by the fingers, the hand of the operator alone is sufficient to give the assistance required. But if the mouth is situated so high in the pelvis as to be reached with difficulty, or if, from the large relative size of the head, there is much compression, the assistance of a tube may be of use. The mode of proceeding which I have found successful in various instances is as follows: as soon as the body and arms are extracted, supposing the face towards the sacrum, an assistant supports the body, carrying it towards the pubis; or the reverse, should the position of the face be to the pubis. The accoucheur should then introduce the hand to which the face looks, till the middle fingers rest upon the mouth of the child. The hand is then to be raised from the throat of the child, making the ends of the fingers a fulcrum, and pushing the perinæum backwards. The air will thus pass upwards as far as the chin of the child. The middle fingers are now to be separated about half an inch from each other, and thus a complete passage will be formed between them, by which the air will reach the mouth of the child. If the child be in a healthy state up to this period, it will immediately breathe and cry, and the delivery of the head may be safely postponed until the natural pains recur. If, from any degree of asphyxia, the child does not immediately breathe, it may often be made to do so by dashing cold water upon the body, or by other stimulating processes. It has even appeared to me practicable to inflate the lungs, in some cases, through an elastic catheter. When the mouth is so high in the pelvis as to be reached with difficulty, or when the compression is so great as to obliterate the cavity between the fingers, a flat tube will be found useful, made of metal, of spiral wire covered with leather, or of elastic gum, and having its largest diameter about half an inch. If the tube be of metal, or of any incompressible material, it should be withdrawn during a pain, to prevent contusion of the soft parts, and immediately replaced, if the pain subsides without expelling the head. Such a tube may be considered as a prolongation of the trachea, and is fully sufficient to sustain life by respiration for

a considerable time. The tube must be guarded and directed by keeping it between the fingers of the inserted hand.

The following are a part of the cases which have occurred to me in practice, affording an opportunity for the trial of this method.

Case I.—A patient was in labour with her second child, August 8th, 1824. The case was one of breech presentation, and without any unusual occurrence the body and arms were delivered in about three hours after my arrival. The position of the head was of the most common kind, with the vertex above the pubis, and the face in the lower part of the hollow of the sacrum. At this time my left hand was passed upward, with a view of depressing the chin, but the child being large, it required some effort to reach the mouth with the fingers. The time consumed in doing this was too great for the safety of the child, and the convulsive spring of the body took place. I was forcibly struck at the same moment by perceiving a gasp of the mouth at the ends of my fingers, and the idea occurred that if a communication could be made to the atmosphere, the child would respire. Attempts were made without success to extract the head by a moderate force, aided by the efforts of the mother and by pressure made by an assistant over the fundus of the womb. At the same time the hand which rested over the mouth and throat was raised a little, and the fingers opened to give passage to the air. The child soon gave another convulsive spring, and at the same moment inspired. The hand being retained in the same position, a slow, but constant respiration continued, accompanied with a low, moaning cry, for eight or ten minutes, when the recurrence of a pain caused the head to be delivered. During the whole of this period before the final pain, the mouth was several inches within the perinæum.

Case II.—This case occurred May 1st, 1826, and was also a breech case. Being a first labour, it was protracted for eighteen hours. After the presentation was ascertained, I had made, in a hasty manner, a tube about five inches long and half an inch wide, slightly flattened, and slightly bent over at its extremity. The case being one of more than common interest, I provided myself likewise with forceps. Although the mother had been in perfect health, yet the body of the child when expelled, was found emaciated and dark coloured, exhibiting marks of feeble life. As much force as it was thought justifiable to use, was employed to extract the head, with no other effect than to bring the mouth within about two inches of the edge of the perinæum. The tube was now introduced and placed in the mouth of the child, but it did not respire. It will be observed that the child had exhibited no convulsive effort, nor any signs of

being alive. An attempt was now made to inflate the lungs, which failed, apparently from want of tightness in the tube, the joining not having been soldered. It nevertheless appeared to me practicable to have inflated the lungs in this situation, with a suitable tube, since the tightness with which the perinæum covers the face would assist in preventing regurgitation of the air. The foregoing attempts having proved unavailing, the forceps were introduced, with the aid of which the head was extracted. The child was resuscitated with great difficulty, and did not breathe spontaneously, until artificial respiration had been kept up, by inflating the lungs through a quill, for more than half an hour. It was two hours before the respiration became so perfect that the child could be left to itself. I have no doubt that this child would have respired before the birth of the head, had there been sufficient constitutional vigour to produce the effort.

Case III. *March 29th*, 1827.—This patient had had five children. In her sixth labour the presenting part was found to be the arm. The pelvis being large, and the parts dilatable, no difficulty occurred at the proper time in introducing the hand, rupturing the membranes, and finding the feet, which were brought down and the body delivered. The face turned towards the perinæum, the mouth was easily reached, and the fingers were opened to give passage to the air as before described. No struggle nor attempt at inspiration, however, occurred. A handful of cold water was then dashed upon the body, upon which the child immediately gave a spring and began to cry. The head was not delivered until some minutes afterwards.

Case IV.—In a case of twins, January 29th, 1829, the first child presented the nates, and was born with the face to the sacrum. After the delivery of the body, the fingers were passed up to the mouth of the child, and opened to give passage to the air. As in former cases the child began to cry in a low voice, with slow respiration, the mouth being two or three inches within the perinæum. Feeling secure in regard to the life of the child, I determined in this instance, to use no extractive effort, but to wait for the expulsive action of the uterus. In the mean time I called the attention of the females who were present, to the crying of the child, which continued without interruption, though the head and neck were buried in the pelvis. In a few minutes an expulsive pain threw out the head with very little assistance on my part. The presentation of the second twin was natural.

Case V.—This occurred in the same patient as Case III. In this labour the presenting parts were the breech and left hand. After the birth of the body the face was found so strongly pressed against the

sacrum, as to render it difficult to form a passage for the air. By a gentle extractive force, the head was made to descend lower in the pelvis, and a tube was placed in the mouth. The child in this situation respired, and after a few minutes, with the assistance of a pain, the head was easily extracted.

The foregoing practice is not new, though it appears to have been lost sight of by most of the later writers on midwifery. I am not aware that it is mentioned by SMELLIE, DENMAN, HAMILTON, BURNS, or DEWEES. MERRIMAN alludes to it as a thing which is possible, but does not speak experimentally on the subject. In one of the older writers, however, a practice nearly similar is described, and warmly recommended from the author's experience. In PUGH's Treatise of Midwifery, published in 1754, are the following instructions:—

"The arms being brought down, the head only remains to be extracted, which must be done with as much expedition as possible, as indeed the arms ought to be; for when the child has passed the navel, the circulation between it and the mother is stopped, from the pressure of the umbilical rope. You must then introduce the fingers of your left hand into the vagina, under the child's breast, and put the first and second fingers into the child's mouth pretty far, so far however, that you are able to press down the child's tongue in such a manner that by keeping your hand hollow, and pressing it upon the mother's rectum, the air may have access to the larynx, you will soon perceive the thorax expand, as the air gets into the lungs. Many authors make very little trouble in extracting the head, but without a well formed pelvis, every operator must know there is difficulty and great danger of losing the child by its stay in the passage; but by this method of giving the child air, I have saved great numbers of childrens lives, which otherwise must have died."

"Before I made use of this method, and pressing externally to assist in extracting the head, I found many children were lost in this situation for want of air, which put me upon inventions; as likewise a third, which was a curved flattish pipe, as likewise a flexible one, that I introduced into the child's mouth as near to the larynx as I could, the other end external, which I found answer, but now as I find my fingers generally answer, I seldom make use of it." Page 49–50.

The foregoing practice of Pugh is virtually the same to which I had resorted before meeting with his book. That part of his directions, which relates to introducing the fingers into the child's mouth, and pressing down the tongue, appears superfluous; for if the air is carried as far as the child's lips, it will enter the lungs whenever the child makes a natural effort to inspire, and without this effort, the practice will be unavailing.

I am aware that it is a prevailing opinion, sanctioned by the authority of respectable writers, that when the face is upon the lower

part of the sacrum or upon the perinæum, the head is wholly in the vagina, and that therefore no farther aid is to be expected from the efforts of the uterus in promoting its expulsion. This I take to be an erroneous view of the subject. After the body is expelled from the womb, its remaining contents are the head and the placenta. These constitute a collective mass, upon which the uterus may continue to act, as long as either of them is contained in its cavity. The head, therefore, whether partly in the uterus, or wholly in the vagina, is subject to be acted upon through the placenta, and I have little doubt, that in all common cases, it would sooner or later be expelled by the uterine efforts alone. Of the fact that expulsive pains acting upon the head, do occur in these cases, my own experience does not permit a moment's doubt. The same fact I have also found to be confirmed by the observations of several of my medical brethren. And I think every accoucheur of experience must have remarked, that there are times, when the safe extraction of the head, by external force, is difficult and even impracticable, while at others, under similar circumstances of size and position, it is perfectly easy, owing doubtless to the co-operative efforts of the womb.

That the extraction of the head by external force alone, acting through the neck, is not always an easy, or a safe operation, we may conclude from the cautious manner with which writers speak upon the subject, and from the known fact, that many children die after the body is delivered. It is true that multitudes of successful cases occur, and it is these chiefly which are published, while those of the opposite kind are consigned to oblivion. It appears probable, that the successful cases are those, in which a favourable proportion exists between the head and pelvis, or in which the efforts of the operator are seconded by uterine pains.

The course of proceeding which appears to me most likely to preserve the life of the child in these cases, is as follows. As soon as the body is delivered, the patient being on her back, the body of the child is to be supported by the right hand of the operator, or by an assistant, while the fingers of the left hand are introduced to search for the mouth. A passage for the air to the mouth is to be formed by raising the perinæum from the face, and opening the fingers in the manner already described. If the child inspires, it may be considered safe, and while the respiration continues, no other care is necessary than to support the body in a favourable position, and to keep the passage unobstructed till the pains return. In the meantime, the patient may be encouraged to exert herself at intervals, in voluntary efforts, and at the same time, an assistant should press and rub with

some force upon the fundus of the womb, with a view to excite contraction.* When any expulsive effort occurs, it is to be seconded by the practitioner by extracting, and the head will in general be delivered without violence or danger.

When it happens that the child does not spring, and makes no effort to breathe after air is conveyed to the mouth, attempts should be made to resuscitate it by dashing a handful of cold water on the body, and by rubbing the back and lower extremities, and striking them with the hand. This will be likely to excite inspiration, and the rest of the case may be conducted as before: or an elastic tube may be placed in the mouth or nostril, and an attempt made to inflate the lungs, the perinæum in the meantime being pressed closely to the face. But in general, if the child does not respire soon after the air is conveyed to it, it is owing either to a defect of constitutional vigour or excitability, or to the unfavourable circumstances of the labour, and in this case no time should be lost in extracting the head, by the neck, or by the forceps, according to the rules laid down for these cases by obstetrical writers.

ART. II. *Notice of an Epidemic that prevailed in Savannah, Georgia, during the Summers of* 1826 *and* 1828. By W. C. DANIELL, M. D. of Savannah, Georgia.

IN the month of August, 1826, a fever made its appearance in Savannah, from which very few escaped. I am inclined to the belief, that this was the same disease with the Dengue, which prevailed so extensively the last season, in Charleston, this place, and elsewhere. It is certainly true that the same consequences did not follow the former, that attended upon the latter. This, however, may, I think, be accounted for, without violating the presumption that the two diseases are identically the same. The severity of the pains which attended upon the fever of 1826, induced the sufferers, who believed the danger proportioned to the degree of suffering they endured, to invoke the early aid of the profession; and the symptoms prompted the physicians to an energetic treatment.

The revulsive and tonic treatment of fever, which has been adopt-

* Pressing and rubbing upon the fundus of the womb has always appeared to me one of the most powerful means of exciting the contraction of that organ in cases of flooding, and of retained placenta.

ed amongst us, was well adapted to the cure of the prevailing epidemic of 1826. The eruptions were brought out and fixed upon the surface early in the disease, by the use of mustard plasters. The administration of serpentaria, (Virg.) and bark or quinine, kept up a moisture upon the surface, and gave tone to the system. Hence no unpleasant consequence followed the disease.

Before the reappearance of this fever in the summer of 1828, when it bore the name of Dengue, our people, by public report, had been taught to view it as a new disease, with which physicians were not acquainted, and when attacked with it, for the most part, merely resorted to some palliative for a pressing symptom. The physicians, generally disposed to associate a new remedy with a new name of disease, treated their patients without system, and consequently without success.

My own observation sustains me fully in the remark, that the Dengue of 1828, was as manageable as the Break-bone fever, (as it was called,) of 1826, in which latter not a death is recollected to have occurred.

It is not my intention to detail the symptoms of the Dengue, as they have repeatedly been described. In the fifth number of this Journal will be found an article upon this disease, containing an account of the symptoms, by Dr. Dickson, of Charleston. It is true that the writer does not discriminate between the symptoms that characterized the disease, and those that were the result of injudicious treatment. If my own views of the Dengue be correct, and if I am successful in giving an exposition of them, the judicious reader will readily perceive what symptoms were appropriate to the disease, and what were superinduced by the absence of all remedies, or their injudicious application.

The Dengue is certainly an exanthematic fever. At an early period, an eruption invariably appears in some part of the body, unless prevented by active purging, bleeding, or some other injudicious prescription. Upon fixing and maintaining this eruption on the surface, and allowing it gradually to pass off by perspiration, depends the radical cure of the disease.

As just stated, my great object in treating Dengue was to fix the disease upon the surface. To this end, upon visiting a patient labouring under it, and especially in the first stages of the disease, I directed a mustard plaster to be placed on the abdomen to inflame the skin.* If the eruption had previously existed, this increased it, or in its ab-

* See my treatise on Autumnal Fevers, pp. 103, 4, and 5.

sence produced it. In some cases additional plasters of the same article were placed on the extremities. Whenever the eruptions were fully established on the surface, the pains of the different parts of the frame were removed.

If circumstances indicated their use, castor oil, or some mild laxative was given, to obviate or remove costiveness.

The eruptions having been fixed on the surface, serpentaria, and bark or quinine were given, until the fever subsided, which was commonly from two to four and five days. After that, the serpentaria was given alone for six or eight days, by which a constant and gentle moisture was maintained on the surface. During this latter period, animal food, porter, or wine, were given the patient in small quantities. Under the above briefly recited treatment, the eruptions gradually passed off, (usually before the fever,) and the patient was restored to health, without being subjected to the usual consequences of the disease, as pains in the limbs, swellings and stiffness of the joints, which appeared to run on for months, and afterwards might be renewed by any slight exposure.

When the skin has been inflamed, the eruptions increase, and in many instances run into each other, producing the appearance of a deep blush over the whole face, neck, and breast. When a moisture has been produced to some extent, there is an abatement in the deep colour of the eruption. This eruption, as before remarked, gradually subsides. In the communication of Dr. Dickson above referred to, he observes, that "the patient was liable to a second, third, and indeed indefinite number of returns of the disease, or relapses, as they were called, while such as were properly covered with the eruption about the sixth day, were protected from any future attack. To this rule there was no exception in my practice, as I may confidently assert after particular attention to the matter." pp. 11–12.

Where the eruption has been regarded as an accidental symptom, and allowed to disappear, or where it has been repelled or prevented from appearing, by the use of purges, the lancet, antimonials, &c. almost every part of the system is liable to be attacked. Several cases of mania, consequent upon repelled eruptions, occurred within my observation. Dr. Foskman informed me of another, in his own practice. In a lady it produced an inability to retain her urine. The most singular consequence which I witnessed, however, as resulting from repelled eruptions, was a case of general tetanus, which terminated fatally.

I am anxious to impress fully on the mind of the reader, the great importance of keeping up a gentle perspiration for six or eight

days after the disappearance of all the symptoms of the disease, by the use of an infusion of serpentaria. Upon patients who refused to submit to this additional treatment, the pain, &c. have returned, and in many instances have produced much suffering and even lameness.

The acute stage of Dengue is, in its effects upon the system of the patient, of but little importance when compared with the chronic stage—or to speak more correctly, the stage consequent upon the repelled eruptions. How long this latter may continue, it is impossible yet to say, as some are still suffering from injudiciously treated or neglected cases of Dengue, which occurred the last summer.

I have derived but little satisfaction, from any method which I have been enabled to devise for the treatment of chronic Dengue. Some relief has been afforded, and it is believed a few cases were cured, by bathing the affected members in cold water saturated with salt, and afterwards using frictions with a flesh-brush or coarse napkin, until perspiration was produced. It was necessary to continue this treatment for eight or ten days. In other instances, however, it has wholly failed.

Savannah, May, 1829.

ART. III. *Case of Acute Gastritis, supervening upon Chronic, arising from Intemperance, and attended with Arachnitis of the Cerebrum.* By W. E. HORNER, M. D. Adjunct Professor of Anatomy in the University of Pennsylvania. [With a plate.]

WILLIAM C. aged forty-three, innkeeper, has used alcoholic drinks in excess for the last eight or ten years, and become much enfeebled from them. The last summer he had a severe dysentery which lasted several weeks.

Nov. 22d, 1827.—I visited him for the first time.

Habitude.—Not much emaciated, skin pallid and temperate.

Countenance.—Dull and unmeaning.

Intellectual Functions.—Disposed to taciturnity, and dull in apprehension.

Sensitive Apparatus.—Hearing dull.

Respiration and *Circulation.*—Natural.

Locomotive Apparatus.—Very much enfeebled, scarcely able to walk.

Digestive Apparatus.—No appetite.

He did not complain of pain in any particular part. Ordered valerian tea.

November 25th.—I visited him again, and found him labouring under hallucinations, of which he was sensible; for he observed that though the figures were before his eyes, yet he knew they were deceptive. He complained also of pain in the epigastrium, and suffered from a retention of urine. The muscles of the abdomen were rigid, and drawn towards the spine. He had spent several nights without sleeping. Ordered opium two grains, and camphor one grain, to be made into a pill, and repeated every three hours till sleep be procured. Four of these pills produced the desired effect, and he slept soundly the following night.

The next day forty leeches were applied to the epigastrium with much advantage in diminishing the pain there, and two days afterwards a blister was put upon the same region.

December 1st.—His speech became suspended; great tenderness occurred in the abdomen, and the most excruciating pain in the lower extremities upon their being moved. His tongue became covered with a thick yellow coat, and his strength exceedingly prostrated. Volatile alkali was administered in a julep to the amount of five grains every two hours. He took several doses of it, and the next day I found that the moisture of the tongue had disappeared, and the yellow coat had dried up into a dark brown one. In the further progress of his treatment up to the day of his death, a mild cathartic was administered on three or four occasions, also a decoction of serpentaria and bark at intervals. His nourishment was wine whey, arrow root, and such light articles as he could be induced to swallow.

It was attempted twice to leech him on the head, but the leeches refused to bite; he was then cupped on the temples. He was also cupped along the spine, half a dozen cups on each side; and had mustard poultices applied to his ankles. He sunk gradually, and died this morning, December 7th, at four o'clock. From the day on which the retention of urine first occurred till the day of his death, the bladder continued paralytic, and an extremely fœtid, dark urine was daily brought off by the catheter. Also, for several days before death, he was incapable of moving the lower extremities, notwithstanding their extreme sensibility to the touch.

Autopsy. Twelve hours after death.

Head.—Very strong adhesion of dura mater to bone. In attempting to remove the latter, several drachms of serum were lost, which were supposed to come from beneath the tunica arachnoidea. The latter was turbid, and raised in vesications.

Blood-vessels of pia mater very turgid, as also those in the cerebrum;

days after the disappearance of all the symptoms of the disease, by the use of an infusion of serpentaria. Upon patients who refused to submit to this additional treatment, the pain, &c. have returned, and in many instances have produced much suffering and even lameness.

The acute stage of Dengue is, in its effects upon the system of the patient, of but little importance when compared with the chronic stage—or to speak more correctly, the stage consequent upon the repelled eruptions. How long this latter may continue, it is impossible yet to say, as some are still suffering from injudiciously treated or neglected cases of Dengue, which occurred the last summer.

I have derived but little satisfaction, from any method which I have been enabled to devise for the treatment of chronic Dengue. Some relief has been afforded, and it is believed a few cases were cured, by bathing the affected members in cold water saturated with salt, and afterwards using frictions with a flesh-brush or coarse napkin, until perspiration was produced. It was necessary to continue this treatment for eight or ten days. In other instances, however, it has wholly failed.

Savannah, May, 1829.

ART. III. *Case of Acute Gastritis, supervening upon Chronic, arising from Intemperance, and attended with Arachnitis of the Cerebrum.* By W. E. HORNER, M. D. Adjunct Professor of Anatomy in the University of Pennsylvania. [With a plate.]

WILLIAM C. aged forty-three, innkeeper, has used alcoholic drinks in excess for the last eight or ten years, and become much enfeebled from them. The last summer he had a severe dysentery which lasted several weeks.

Nov. 22d, 1827.—I visited him for the first time.

Habitude.—Not much emaciated, skin pallid and temperate.

Countenance.—Dull and unmeaning.

Intellectual Functions.—Disposed to taciturnity, and dull in apprehension.

Sensitive Apparatus.—Hearing dull.

Respiration and *Circulation.*—Natural.

Locomotive Apparatus.—Very much enfeebled, scarcely able to walk.

Digestive Apparatus.—No appetite.

He did not complain of pain in any particular part. Ordered valerian tea.

November 25th.—I visited him again, and found him labouring under hallucinations, of which he was sensible; for he observed that though the figures were before his eyes, yet he knew they were deceptive. He complained also of pain in the epigastrium, and suffered from a retention of urine. The muscles of the abdomen were rigid, and drawn towards the spine. He had spent several nights without sleeping. Ordered opium two grains, and camphor one grain, to be made into a pill, and repeated every three hours till sleep be procured. Four of these pills produced the desired effect, and he slept soundly the following night.

The next day forty leeches were applied to the epigastrium with much advantage in diminishing the pain there, and two days afterwards a blister was put upon the same region.

December 1st.—His speech became suspended; great tenderness occurred in the abdomen, and the most excruciating pain in the lower extremities upon their being moved. His tongue became covered with a thick yellow coat, and his strength exceedingly prostrated. Volatile alkali was administered in a julep to the amount of five grains every two hours. He took several doses of it, and the next day I found that the moisture of the tongue had disappeared, and the yellow coat had dried up into a dark brown one. In the further progress of his treatment up to the day of his death, a mild cathartic was administered on three or four occasions, also a decoction of serpentaria and bark at intervals. His nourishment was wine whey, arrow root, and such light articles as he could be induced to swallow.

It was attempted twice to leech him on the head, but the leeches refused to bite; he was then cupped on the temples. He was also cupped along the spine, half a dozen cups on each side; and had mustard poultices applied to his ankles. He sunk gradually, and died this morning, December 7th, at four o'clock. From the day on which the retention of urine first occurred till the day of his death, the bladder continued paralytic, and an extremely fœtid, dark urine was daily brought off by the catheter. Also, for several days before death, he was incapable of moving the lower extremities, notwithstanding their extreme sensibility to the touch.

Autopsy. Twelve hours after death.

Head.—Very strong adhesion of dura mater to bone. In attempting to remove the latter, several drachms of serum were lost, which were supposed to come from beneath the tunica arachnoidea. The latter was turbid, and raised in vesications.

Blood-vessels of pia mater very turgid, as also those in the cerebrum;

the latter on being cut into, bled freely, and much serum exuded from it. Cerebellum soft; adhesion between thalami unusually strong; a cluster of transparent vesicles on each side of plexus choroides; blood-vessels of velum very turgid. Spinal marrow, veins on surface very turgid; very great vascular fulness internally, giving a red pink colour along the roots of the anterior fasciculi of nerves where they came from within the medulla spinalis. Spinal marrow not so vascular along the roots of posterior fasciculi, but still having a superabundance of blood.

Thorax.—Ancient universal pleuritic adhesion on both sides; lungs healthy; heart healthy, its blood not coagulated.

Abdomen.—No peritoneal disease.

Stomach universally inflamed, and within of a deep pink colour, not coming from extravasation as in fever, but from the immense number and the fulness of its veins, which ran along the surface of the internal coat. At many places their capillaries were so numerous as to look at a little distance like small spots of extravasation, which, however, with the aid of a microscope were found to be congeries of very fine vessels. Near the cardiac orifice there was a round patch, two or two and a half inches in diameter, consisting of thickly interwoven veins, containing black blood, and looking as if they were varicose; they were on the internal surface of the mucous membrane. In the pyloric region were two reddish slate-coloured patches, the indications of a chronic irritation there, and about twenty-four lines in diameter. Pylorus thickened; stomach small; scarcely any gas in the bowels.

Mucous coat of duodenum and jejunum inflamed to almost the same red colour with that of the stomach; ileum and colon of a bright pink colour internally; no ulceration of intestines; colon contained some well-elaborated fæces.

Liver common size, degenerated into a drab colour, hard, diminished vascularity; acini consisted in little hard scirrhus-like grains. The secretion of bile seemed to have been suspended, for the gall-bladder contained only a little black-coloured mucus.

Pancreas healthy; spleen healthy; kidneys healthy. Mucous coat of bladder inflamed, being injected with a net-work of veins, large and small, which were particularly abundant about the neck.

This patient had a mortification of the size of a dollar, from pressure on sacrum. On cutting into it, as it was in the early stage, the blood was identified with the cellular substance and skin, so that it all looked like a bruise.

Plate III. fig. 1. patch from the cardiac portion of the stomach; fig. 2. patch from the pyloric portion of the stomach.

ART. IV. *Observations on Entropion, with a Case.* By SAMUEL JACKSON, M. D. of Northumberland.

THE various methods which have been practised for the cure of this troublesome affection are difficult or painful; that of SAUNDERS and DORSEY is followed by permanent deformity; and all of them are nearly impossible to perform on children. If the operation I have found successful in one instance, prove applicable to every tenth case, it will not be considered unworthy of public attention.

One of my daughters, about three years old, was attacked with conjunctivitis, without any evident cause, in May, 1828; and as the disease was mild it was too much neglected at the onset. About the 1st of June she was sent to a dark room and confined there nearly ten months. During the first six of these months she had varicella, bilious fever, and frequent attacks of intermittent, all which fell upon her eyes, and aggravated the disease, so that by November the palpebræ were so much swollen that the eyes could not be seen, and the retina so sensible that she could not tolerate light sufficient to enable us to see any object, on first entering her apartment. In this state of things she found no comfort but in riding round the nursery in her wagon, with her face buried in a pillow. This indeed was her almost steady occupation, day after day, and from morning till night, for many months; nay, it was often necessary to rise in the night and give her this only comfort.

She was so irritable and unmanageable that nothing could be steadily applied to the eyes with any advantage; nothing could be effected with leeches, owing to the circumstance of her having been excessively alarmed with an attempt to apply some in the early stage of her complaint. It is not necessary to detail the particulars of the treatment, but a few of the more prominent facts I will detail.

Blisters to the nucha and behind the ears were of no service during any stage of the disease, and one at the insertion of the deltoid, three inches square, kept running profusely with savin cerate for six weeks, was utterly useless; but when applied near the eyes, they never failed to do good, and when drawn over the whole forehead at once, they sometimes reduced the photophobia so suddenly that she would cry out during the drawing of them, that it was too dark, she could not see. At length, by continual repetition of the blisters to her forehead and temples, not over the eyes, the swelling of the palpebræ gradually lessened, and the intolerance of light also; she began to play about the dark room, and to amuse herself with a swing.

In this state of things the disease assumed in some measure an intermittent form. When running round the room with the greatest hilarity, she would suddenly throw herself on the floor, with her face in her hands, and cry most piteously that her eyes hurt; her wagon was then demanded, and after riding three or four hours in sullen silence, her face buried in a pillow, a softness and moisture of the whole surface came on, when she would resume her cheerfulness and play about in the dark till bed-time. About the same hour on the following day, a similar scene was to be acted, though sometimes the paroxysms came on earlier, sometimes later, and not unfrequently they passed over one, two, or three days. We had reason to believe they were preceded by a slight chill, they were certainly attended with an acceleration of the pulse, and they always went off with a softness of the skin. An attempt was made to cure them with quinine, but it failed entirely, and so did the prussiate of iron. Fowler's solution of arsenic was then tried in doses of five drops, four, five, and six times a day, and before she had taken it five days the paroxysms were checked, and the patient bore more light than she had done for eight months. This poison was then omitted, and the blisters were continued to her temples and forehead; the photophobia became every day less, till within three weeks from the time the arsenic was first used, she could bear as much light as would enable us to read large print with some difficulty.

The paroxysms now returned precisely like the first, but the arsenic or Fowler's solution removed them entirely and finally in four days; and by continual blistering, with gradually increasing the light, she was able, with the use of a green veil, to bear the full blaze of day by the first of April. One eye was now entirely well, but the other was found to be affected with entropion of the lower palpebra. The whole tarsus was turned under the eyeball, so as to present a smooth rounded contour, as represented in M. Demours' eighteenth plate. We made several attempts to pull down the lid and extricate the tarsus, but so violent was the action of the muscles that we utterly failed; therefore, as the eye was constantly improving we desisted from any further attempt, with the hope that the new cilia had not grown out so as to cause irritation. The swelling diminished every day under the use of blisters; the globe was not inflamed, but some matter filled the eye in the morning; every blister most evidently lessened the sensibility to light.

Three weeks ago we made a very vigorous attempt, with Dr. Rodrigue's help, to pull out the tarsus, but succeeded only so far as to discover that the cilia had grown to nearly their full length and

full number, and that the eyeball, rolling upon them, held the tarsus firmly under. Here was at once an end to all our dreams of a cure; for on such a restive child, now rendered infinitely impatient of every thing, we considered an operation as impracticable, and that the cilia would irritate the eye afresh, and prove a cause of insuperable inflammation. Wishing however to explore the state of things yet further, we made another violent attempt to pull out the tarsus, and fortunately the little sufferer did not resist, as she had always done before, with the utmost power of the orbicularis; so far from it, that, as it were by inspiration, she seized the palpebra with all her fingers, while mine were employed lower down, and she turned the tarsus completely out, so that the cilia spread over the front of the eye. It appeared to have no tendency to relapse; I saw it resume its natural situation and figure, nor could I compare the operation to any thing more appropriately, than to the reduction of a dislocated bone. The eye and palpebra assumed their natural appearance at once, and have ever since continued entirely well. The cilia stood erect at first, and spread over the eye, but they gradually assumed their proper direction.

This case was clearly not produced by ulceration, and consequent contraction of the inside of the palpebra; we should rather presume that the lid had been so distorted by tumefaction, that the tarsus was reverted under the eye-ball, and afterwards firmly held there by the pressure and rolling of the globe on the new cilia. This accords with the observations of M. Demours, that "the entropion of the inferior palpebra is most frequently the consequence of an œdema of its tissues, and particularly of a relaxation of that part of the skin which covers it."*

When this case obtains he cured it by forcibly everting the tarsus and securing it from relapse, by drawing down the skin with strips of court plaster, "taffetas agglutinatif, vulgairement appelé taffetas d'Angleterre." By this method, which, however, he does not claim as original, he has cured the disease after four years continuance. But when this does not succeed, he recommends the following plan, which originated with himself. The patient is to place himself before a glass, draw out the tarsus, and resolutely hold it fast three days and as many nights, if the cure do not appear to be obtained sooner. He must not permit it to slip his fingers for a moment, as he will then lose all the fruit of his previous labour. He must sit all night before his mirror, and if he should unfortunately give way to sleep, he

* Tome premier, p. 105, De la Trichaise.

is to seize the palpebra the moment he awakes. He relates the case of a lady, sixty years old, who had been afflicted with the disease fourteen years and yet cured herself by this method in two days and one night, having yielded to sleep only about two hours. M. Demours very truly observes that the patient's success will depend on his vigour of mind and his desire of a cure. We cannot see why the hands of an assistant might not be substituted to relieve the patient, at least during the hours of sleep.

My case was cured without any plasters, and without continuing the traction for one minute; is it not then very possible, that in some of M. Demours' cases, the cure might have been equally facile, and that the continued traction and the plasters might have been entirely dispensed with? However this may be, it is very certain, that one, or even all of these methods ought to be tried, before any cutting instrument is proposed, and particularly before the excision of the tarsus, an operation that must always leave a permanent deformity, which is very conspicuous in Mr. Saunders's second plate.

The operation commonly ascribed to Scarpa, though it was practised before his time, will not be followed by an equal deformity; but if we mistake not, it will never prove necessary in those cases which have been caused by mere relaxation and swelling of the palpebra. Our own cure consisted in reducing a mere dislocation, and the success depended principally on the child's having sunk the ends of her fingers deep into the space between the orbit and the eyeball, by which she pulled down the palpebra, and at the same time pushed the lower edge inwards, and thus dislodged and protruded the tarsus. It showed not the least tendency to relapse, which might have been partly owing to the spreading of the cilia over the eyeball, until they gradually resumed their proper direction.

I have been induced to offer this case and these observations, because the most popular systematic authors in surgery, say nothing of Demours' practice, and would probably not suspect, that the simple operation, which relieved us in one minute of such gloomy anticipations, could ever prove successful.

ART. V. *On the Internal Use of the Spirit of Turpentine in Incarcerated Hernia.* By THOMAS SEWALL, M. D. Professor of Anatomy and Physiology in the Columbian College, District of Columbia.

SOME time since, I was informed by Dr. M'WILLIAMS, a highly respectable physician of this city, that he had recently met with two cases of incarcerated hernia, in which the spirit of turpentine, exhibited in large doses internally, was successful in effecting a reduction of the protruded part, after all other means had failed. The circumstances of these cases were such, as to inspire me with some confidence in the powers of the turpentine, and induce me to determine on its application as soon as an opportunity should present. It was not long after, that the following case of incarcerated scrotal hernia came under my charge.

Early on Sunday morning I was called to visit a labouring man, by the name of Penn, a brick-maker by trade, a short, robust person, of about twenty-five years of age. He had enjoyed perfect health, with the exception of an entero-scrotal hernia, under which he had laboured for a number of years, and for which he had worn a truss.

On my arrival I found that he had been in a state of great suffering during the night, and that he was still affected with intense pain and high fever. From inquiry I learned that while at work at his usual occupation, the day previous, the intestine escaped through the abdominal ring and descended into the scrotum, and that all the efforts which he could make to reduce it were ineffectual. On examining the scrotum, I found it greatly distended, hard, and tender to the touch.

I first attempted a reduction of the bowel by taxis, but as my exertions were unavailing, I bled him largely and then renewed my exertions, but without success. I then gave him two ounces of the spirit of turpentine, and instructed my pupils, who remained with him, to repeat the same dose every hour, till eight ounces were taken, or some sensible effect produced. Soon after I left him, a profuse sweat took place, and he fell into a tranquil sleep. In about two hours the hernial tumour became soft and yielding and spontaneously retired from the scrotum. On repeating my visit in the middle of the day, I found he had taken about six ounces of the turpentine, and without experiencing any inconvenience from it. He was still sleeping, and entirely relieved. The next day he was at work in the brick-yard, and with no other complaint than that of a slight looseness

is to seize the palpebra the moment he awakes. He relates the case of a lady, sixty years old, who had been afflicted with the disease fourteen years and yet cured herself by this method in two days and one night, having yielded to sleep only about two hours. M. Demours very truly observes that the patient's success will depend on his vigour of mind and his desire of a cure. We cannot see why the hands of an assistant might not be substituted to relieve the patient, at least during the hours of sleep.

My case was cured without any plasters, and without continuing the traction for one minute; is it not then very possible, that in some of M. Demours' cases, the cure might have been equally facile, and that the continued traction and the plasters might have been entirely dispensed with? However this may be, it is very certain, that one, or even all of these methods ought to be tried, before any cutting instrument is proposed, and particularly before the excision of the tarsus, an operation that must always leave a permanent deformity, which is very conspicuous in Mr. Saunders's second plate.

The operation commonly ascribed to Scarpa, though it was practised before his time, will not be followed by an equal deformity; but if we mistake not, it will never prove necessary in those cases which have been caused by mere relaxation and swelling of the palpebra. Our own cure consisted in reducing a mere dislocation, and the success depended principally on the child's having sunk the ends of her fingers deep into the space between the orbit and the eyeball, by which she pulled down the palpebra, and at the same time pushed the lower edge inwards, and thus dislodged and protruded the tarsus. It showed not the least tendency to relapse, which might have been partly owing to the spreading of the cilia over the eyeball, until they gradually resumed their proper direction.

I have been induced to offer this case and these observations, because the most popular systematic authors in surgery, say nothing of Demours' practice, and would probably not suspect, that the simple operation, which relieved us in one minute of such gloomy anticipations, could ever prove successful.

ART. V. *On the Internal Use of the Spirit of Turpentine in Incarcerated Hernia.* By THOMAS SEWALL, M. D. Professor of Anatomy and Physiology in the Columbian College, District of Columbia.

SOME time since, I was informed by Dr. M'WILLIAMS, a highly respectable physician of this city, that he had recently met with two cases of incarcerated hernia, in which the spirit of turpentine, exhibited in large doses internally, was successful in effecting a reduction of the protruded part, after all other means had failed. The circumstances of these cases were such, as to inspire me with some confidence in the powers of the turpentine, and induce me to determine on its application as soon as an opportunity should present. It was not long after, that the following case of incarcerated scrotal hernia came under my charge.

Early on Sunday morning I was called to visit a labouring man, by the name of Penn, a brick-maker by trade, a short, robust person, of about twenty-five years of age. He had enjoyed perfect health, with the exception of an entero-scrotal hernia, under which he had laboured for a number of years, and for which he had worn a truss.

On my arrival I found that he had been in a state of great suffering during the night, and that he was still affected with intense pain and high fever. From inquiry I learned that while at work at his usual occupation, the day previous, the intestine escaped through the abdominal ring and descended into the scrotum, and that all the efforts which he could make to reduce it were ineffectual. On examining the scrotum, I found it greatly distended, hard, and tender to the touch.

I first attempted a reduction of the bowel by taxis, but as my exertions were unavailing, I bled him largely and then renewed my exertions, but without success. I then gave him two ounces of the spirit of turpentine, and instructed my pupils, who remained with him, to repeat the same dose every hour, till eight ounces were taken, or some sensible effect produced. Soon after I left him, a profuse sweat took place, and he fell into a tranquil sleep. In about two hours the hernial tumour became soft and yielding and spontaneously retired from the scrotum. On repeating my visit in the middle of the day, I found he had taken about six ounces of the turpentine, and without experiencing any inconvenience from it. He was still sleeping, and entirely relieved. The next day he was at work in the brick-yard, and with no other complaint than that of a slight looseness

of the bowels, and a scalding sensation in the rectum in passing his stools. No strangury was produced.

Although it requires the experience derived from many cases to entitle a new remedy to confidence, the beneficial effects of the turpentine were so obvious and striking, in the above cases, that I have thought it proper to call the attention of the profession to its further trial.

ART. VI. *Account of the Small-Pox Epidemic in Western Pennsylvania.* By L. CALLAGHAN, Licentiate of the Faculty of Physicians and Surgeons, and Member of the Faculty of Medicine of Glasgow.

VARIOLA made its appearance in the city of Pittsburgh, in the month of October, 1828, and continued to May, 1829. It is said, the first case was that of a man of colour, reported to have come from Fort George. To this man a large proportion of our citizens are inclined to attribute the misfortune of having been afflicted with this loathsome and severe visitation. This, however, is but taking a narrow and unphilosophical view of the subject, and overlooking entirely the great exciting cause of epidemics in general, viz. their origin and propagation through the medium of atmospherical influence. It is supposed in the surrounding country, that the disease spread from this city as a centre; nothing can possibly be more remote from truth; it existed in many of the more remote counties nearly in as great a degree as in the city of Pittsburgh, in proportion to the number of subjects liable to the disease.

Such was the dread inspired by the idea of its contagious influence, that persons arriving here from a distance, would scarcely delay a moment in the place; even those coming into town to attend market from the adjoining country, made all possible haste to get out again, under the impression that the disease could be caught no where but here. A goodly number of persons reported to have been vaccinated took the disease, insomuch that the faith of the community in the preventive powers of vaccination, is considerably shaken. One young man came under my observation, who had been vaccinated ten or twelve years before by a most respectable practitioner in Philadelphia; he had a distinct and well-defined mark of a vaccine vesicle on the arm, yet he had the natural small-pox in the most regular manner, though mild.

Here there were a numerous family of young persons, none of whom caught the disease. They had all been formerly vaccinated; some six, some nine, some twelve, and some twenty years before. A boy who had not been vaccinated, caught the disease; during his convalescence, and throughout the greater part of his illness, a child, about three or four years of age, who had been formerly vaccinated, was much about him—she escaped the disease.

In a family who occupied a house, in the cellar of which some persons of colour resided, ill of the small-pox, three of the children were liable to the contagion; they were vaccinated and escaped.

It is customary with our people to suppose, that if, after the insertion of the vaccine virus, a vesicle appears, they are perfectly safe, so far as vaccination can protect them. Motives of ill-judged economy also induce many to vaccinate themselves; and even in many cases where the practitioner is called on to insert the vaccine matter, he has not an opportunity of judging whether or not it has taken proper effect. Hence the occurrence of small-pox in very many of the instances which have taken place during this epidemic, after reputed vaccination, argues nothing, so far as impairing our confidence in the protective powers of this most valuable discovery is concerned.

This epidemic was characterized in general by mildness of form, the eruption being of the distinct kind, and the fever of the inflammatory type, exhibiting a readiness to give way to the usual remedial means. Some practitioners are of opinion that the disease showed itself in the confluent form in a few instances. I saw nothing of this. The eruption was occasionally so thick on the face as to give the appearance of the vesicles running into each other; while on the body and extremities they were perfectly distinct, and the low typhoid form of fever was absent. The majority of the cases which terminated fatally, were such as were either neglected or improperly treated during the eruptive fever, or had previously laboured under some constitutional defect entirely unconnected with the variolous infection.

The disease was generally ushered in by a feeling of lassitude, pains over the extremities, giddiness and pain in the head, dry skin, furred tongue, restlessness, full and tense pulse, exacerbations of heat and cold, thirst, want of appetite, constipation of the bowels, throbbing of the temporal arteries, with frightful dreams. The subjects of attack were for the most part young persons, and principally children, although there were a few cases of persons of middle age.

The mode of treatment most advantageous in my hands, was in the commencement of the eruptive fever to detract a quantity of blood, proportioned to the age and habit of the patient. To have the head shaved, and cold water and vinegar applied over the scalp. The body

of the bowels, and a scalding sensation in the rectum in passing his stools. No strangury was produced.

Although it requires the experience derived from many cases to entitle a new remedy to confidence, the beneficial effects of the turpentine were so obvious and striking, in the above cases, that I have thought it proper to call the attention of the profession to its further trial.

ART. VI. *Account of the Small-Pox Epidemic in Western Pennsylvania.* By L. CALLAGHAN, Licentiate of the Faculty of Physicians and Surgeons, and Member of the Faculty of Medicine of Glasgow.

VARIOLA made its appearance in the city of Pittsburgh, in the month of October, 1828, and continued to May, 1829. It is said, the first case was that of a man of colour, reported to have come from Fort George. To this man a large proportion of our citizens are inclined to attribute the misfortune of having been afflicted with this loathsome and severe visitation. This, however, is but taking a narrow and unphilosophical view of the subject, and overlooking entirely the great exciting cause of epidemics in general, viz. their origin and propagation through the medium of atmospherical influence. It is supposed in the surrounding country, that the disease spread from this city as a centre; nothing can possibly be more remote from truth; it existed in many of the more remote counties nearly in as great a degree as in the city of Pittsburgh, in proportion to the number of subjects liable to the disease.

Such was the dread inspired by the idea of its contagious influence, that persons arriving here from a distance, would scarcely delay a moment in the place; even those coming into town to attend market from the adjoining country, made all possible haste to get out again, under the impression that the disease could be caught no where but here. A goodly number of persons reported to have been vaccinated took the disease, insomuch that the faith of the community in the preventive powers of vaccination, is considerably shaken. One young man came under my observation, who had been vaccinated ten or twelve years before by a most respectable practitioner in Philadelphia; he had a distinct and well-defined mark of a vaccine vesicle on the arm, yet he had the natural small-pox in the most regular manner, though mild.

Here there were a numerous family of young persons, none of whom caught the disease. They had all been formerly vaccinated; some six, some nine, some twelve, and some twenty years before. A boy who had not been vaccinated, caught the disease; during his convalescence, and throughout the greater part of his illness, a child, about three or four years of age, who had been formerly vaccinated, was much about him—she escaped the disease.

In a family who occupied a house, in the cellar of which some persons of colour resided, ill of the small-pox, three of the children were liable to the contagion; they were vaccinated and escaped.

It is customary with our people to suppose, that if, after the insertion of the vaccine virus, a vesicle appears, they are perfectly safe, so far as vaccination can protect them. Motives of ill-judged economy also induce many to vaccinate themselves; and even in many cases where the practitioner is called on to insert the vaccine matter, he has not an opportunity of judging whether or not it has taken proper effect. Hence the occurrence of small-pox in very many of the instances which have taken place during this epidemic, after reputed vaccination, argues nothing, so far as impairing our confidence in the protective powers of this most valuable discovery is concerned.

This epidemic was characterized in general by mildness of form, the eruption being of the distinct kind, and the fever of the inflammatory type, exhibiting a readiness to give way to the usual remedial means. Some practitioners are of opinion that the disease showed itself in the confluent form in a few instances. I saw nothing of this. The eruption was occasionally so thick on the face as to give the appearance of the vesicles running into each other; while on the body and extremities they were perfectly distinct, and the low typhoid form of fever was absent. The majority of the cases which terminated fatally, were such as were either neglected or improperly treated during the eruptive fever, or had previously laboured under some constitutional defect entirely unconnected with the variolous infection.

The disease was generally ushered in by a feeling of lassitude, pains over the extremities, giddiness and pain in the head, dry skin, furred tongue, restlessness, full and tense pulse, exacerbations of heat and cold, thirst, want of appetite, constipation of the bowels, throbbing of the temporal arteries, with frightful dreams. The subjects of attack were for the most part young persons, and principally children, although there were a few cases of persons of middle age.

The mode of treatment most advantageous in my hands, was in the commencement of the eruptive fever to detract a quantity of blood, proportioned to the age and habit of the patient. To have the head shaved, and cold water and vinegar applied over the scalp. The body

and extremities sponged with cold or tepid water, according to the temperature of the surface and the feelings of the patient. Then to exhibit as much of the sol. tart. antimonii as would produce a free emetic effect, following it up by aperients until the intestinal canal was properly evacuated. A determination to the surface was afterwards kept up, by the use of the ox. antimonii cum phos. calcis, or the aq. acetatis ammoniæ. After the appearance of the eruption, gentle aperients, with the occasional use of an anodyne draught or the pulv. ipecac. et opii was generally all that was requisite. The apartments of the sick were kept cool, and as well ventilated as the locality of the place would admit. A mattrass was preferred to a feather bed, and the bed clothes as light as possible. The diet recommended was thin farinaceous gruel, with cooling acidulated drink. During the period of convalescence, the most rigid abstemiousness was strictly enjoined.

Small-pox has not appeared in this country for about ten years before. There was nothing peculiar in the season during the prevalence of this epidemic; the winter was cold, but not more so than usual. But the winter previous was remarkable for the quantity of rain that fell, and the absence of frost or snow. From report of the sextons of the various burial grounds in the city of Pittsburgh, there were said to be from fifty-five to sixty interments of persons who had died of small-pox during the epidemic. What proportion this may bear to the number of recoveries, it is difficult to say, as there is no register kept, even of those who come under the care of the practitioners of medicine, and many requested no medical advice. In some of the German settlements in the adjoining counties, they utterly refused to be vaccinated, or to have any medical aid when they were attacked by the disease in the natural way. Throughout the whole course of the epidemic, cases of varioloid occurred from time to time. But there were no deaths from this cause. During the spring months whooping cough made its appearance, and variola began to diminish. I had the opportunity of making only one post mortem examination; the following are the appearances as exhibited on dissection. C. D. ætat. 30, forty-eight hours after death. Cutis covered with variola of the distinct character. General appearance of the intestines much injected with blood. Colon very much inflated. Gall-bladder turgid with bile of a black, viscid appearance. Pancreas exhibited a wasted appearance. Coats of the stomach injected with blood. An accumulation of hardened fæces near the arch of the colon. The veins on the meninges of the brain, turgid with blood. Venous congestion in the cerebrum, and the lungs full of dark, grumous blood.

Pittsburgh, May, 1829.

ART. VII. *Perforation of the Stomach, without Ulceration or Softening of its Coats.* By LEONARD PEIRCE, M. D. of Sutton, Massachusetts.

FLETCHER BOTTOMLY, a native of Cheshire, England, came to the United States in June, 1827, then aged nineteen years; he followed weaving in a woollen manufactory.

January 30th, 1829.—I was called about six o'clock this evening to visit him, but being from home, did not see him till nearly eight. I found him suffering from severe pain in the region of his stomach—feet and hands cold—pulse small and fluttering—countenance contracted and anxious. On inquiring of himself and his comrades, I learned that he had been as well as usual till about five this evening, when he was suddenly seized with a violent pain at the epigastrium, which soon extended downwards, but the seat of the pain remained at the stomach. When first seized, the pain was so violent that he cried out "I am dying," and threw himself upon the floor, holding his bowels with his hands, and pressing his body and thighs together. He was soon helped to his lodgings, which were a few rods distant, but was unable to walk upright, remaining bent, supporting himself with his hands upon his knees. The pain still continued violent, but was not now confined to his stomach, being occasionally as low down as the pubic region. Before I arrived he had taken an emetic of ipecacuanha, containing eight grains of calomel, which had vomited him twice with some relief; but the pain being *now* in his stomach, I gave him tepid water, which vomited him twice more, and he expressed himself considerably relieved. I now applied flannels wet with warm water to his extremities, and gave him two grains of solid opium. His extremities soon became warm; pulse fuller and stronger; the pain abated considerably, and he fell asleep. I now directed one ounce of castor oil to be given every three hours until his bowels were moved, and left him for the night.

31*st*.—At 7 A. M. I found him considerably prostrated, and in pretty severe pain. Pulse fluttering, and extremities cold. The bowels were rather fuller than natural, but were not tender on pressure; had passed a restless night, and taken the oil without producing any sensation of motion in his bowels; quite thirsty. I now divided two drops of croton oil into six parts, and directed one part to be given every half hour until the whole was taken, unless a motion was produced. Stimulants were given, and water gruel for drink. 4 P. M. Had taken all the croton oil without producing the slightest

cathartic effect. Pulse much as in the morning; complained of considerable soreness in his bowels, which were rather fuller than in the morning. I should have given enemata, but for want of the proper apparatus was obliged to postpone them, and directed one ounce of castor oil to be given every hour, and put a blister upon the epigastrium. 8 P. M. Directed an enema of decoction of senna, which passed off in about twenty minutes without bringing any fæces with it. In a few minutes I repeated the injection, which soon passed off unmixed with any alvine matter. I directed an enema of milk and molasses, of each four ounces, to be given every hour until his bowels were moved; continued the drink of water gruel; left him for the night.

February 1*st.*—4 A. M. vomited a small quantity of a dark, fetid liquor, and in about fifteen minutes expired.

I very readily obtained leave of the friends to examine the body, which I did at 2 P. M. ten hours after his death.

The blister had produced very slight vesication, and the bowels were considerably tumid. On cutting through the parietes of the abdomen, there was a sudden gush of liquor consisting of those articles he had taken into his stomach, castor oil, water gruel, &c. I observed to the bystanders that there was a rupture of the stomach or intestines, and I then supposed it to be from ulceration. After removing the fluids from the abdominal cavity with an injecting syringe, I laid open the abdomen, and proceeded to search for disease. The vessels of the omentum, and of the peritoneal coat of the intestines were considerably gorged with blood, but there were no unnatural adhesions between any of the parts. The mucous coat of the intestines was of a healthy appearance, except in some places in the small intestines there were minute scarlet dots thickly set together. The urinary bladder was entirely empty, and of a healthy appearance. Kidneys healthy. The liver was of a pale ash colour externally, and internally much paler than natural. On arriving at the stomach, I found about half an inch above the pylorus, on the anterior part, an opening about two and a half lines in diameter. This had the appearance of having been punched out with a cutting instrument, and was not much unlike the holes made in harness for the buckle tongues, but the edges were not quite so well defined as though cut with an edged tool. There was no appearance of disease about the perforation, either externally or internally, except that the mucous lining of the stomach was filled with black and brown dots of about the same appearance, except in colour, as the grains of Indian meal taken in the gruel.

Bottomly was of a melancholic temperament, tall, spare, and tem-

perate in the use of spirituous liquors. He was a voracious eater, devouring as much at his regular meals as two common eaters, and frequently eating between meals, and always taking some cold food just before going to bed. He had for several years previous to his death been afflicted with purulent ophthalmia. Since the time of his arrival in this country he had been very costive, generally not having a stool oftener than once a week. He had within three or four months of his death, three small, hard, red, or rather purplish tumours directly in the pit of his stomach, which were very sore and painful, slow in forming, and difficult to cure. He usually applied a plaster of shoemaker's wax to them, which caused them to ulcerate and discharge a sanious, bloody matter, and then they would heal. The last one was a little previous to his death, but had at the time got entirely well.

Sutton, April 10, 1829.

ART. VIII. *Some Observations on Wounds of the Heart.* By JOHN REDMAN COXE, M. D. Professor of Materia Medica and Pharmacy in the University of Pennsylvania.

IN the last number of this Journal, p. 263, is a notice of a very interesting case of gun-shot wound of the chest, in which the patient lived sixty-seven days after the accident, and on post mortem examination, three shot were found lying loose in the cavity of the right ventricle, and two in the right auricle.

The case is of that interesting nature, that it strongly arrested my attention; more especially, since the affirmation of this wound of the ventricle, and its subsequent healing, is in direct opposition to *every* recorded case of the penetration of the cavities of the heart, of which I had collected a considerable number, in my Memoria Medica. After considerable deliberation, I have therefore ventured to draw up the following observations, in opposition to the opinion entertained by those respectable physicians who have recorded the case; hoping that they may either change those opinions, or that they may have an additional mass of facts on the subject, that may correct my own if erroneous.

That wounds of the heart are *invariably fatal*, when penetrating its cavities, is confirmed by every case to be found in the records of

our science.* That such wounds are *necessarily* so, merely from the structure of that viscus, is not so evident; the fatality arises from the nature of its functions, and the absolute tendency to death, which, the unarrested discharge of blood, must inevitably promote; rather than from any incapability of its admitting of the same salutary influences of nature, that are conspicuous in every other muscle of the body; and hence there is no deficiency of recorded healing up of superficial wounds and ulcerations, &c. of the heart, where a due adaptation of cure had been sedulously attended to. It is also obvious, from the cases I shall adduce, that life has been prolonged even up to the sixteenth and seventeenth days, and through all the intermediate period; but which must obviously have been the result of some mechanical cause, by which the blood was not able to pour forth in an acute, but only in a chronic manner, if I may use these terms for this particular view of the subject. In none of these cases was the wound healed, nor was life in any of them preserved, even during one-third part of the period of the case which has given rise to these remarks. I am consequently led to believe, that in this case, the shot thus found within the cavities of the heart, reached them by a very different conveyance than that pointed out!—and that the spots assumed as eschars of their transmission, were but the marks of superficial injury, or mere lesion of the external surface by shot, that never penetrated beneath that surface.

I shall now detail some of those cases I have adverted to, in hopes that they will tend to corroborate my previous remarks, as well as the few that will subsequently be made.

Parey, lib. 10, cap. 30, gives an account of a gentleman, who, fighting a duel, received a wound which penetrated his heart, so large as to contain his finger; yet he struck some blows afterwards, and followed up his flying enemy above two hundred paces before he fell down dead.

Frederick 3d of Denmark, is reported to have shot a stag through both ventricles of the heart, who ran fifty paces before he fell.

* I speak of wounds from fire-arms or swords, &c. Certain it is, that acupuncturation has been effected, without death ensuing; but there is little analogy between this and the former. Glandorpius relates on the authority of Sanctorius, that the heart of a rabbit was perforated by a sharp instrument, the animal being alive at a period of several months. I have heard it stated that a physician of this city, intent on prosecuting some experiments on acupuncturation, had actually introduced a needle into the substance of his own heart. I know not how true this is, but if so, he is yet active, and apparently in perfect health.

Muller relates the case of a soldier, who lived fifteen days after a wound of the right ventricle of the heart. Heer relates several cases of a similar nature, and Tulpius mentions one who survived a similar wound for two days. Obs. lib. 2, cap. 18.

Saviard, Surgery, Obs. 113, states the case of a man, who lived four or five days after a wound, in which the heart had been thrust through, from the right ventricle into the left, across the septum medium; he ascribes this prolongation of life to the blood forming clots, after filling up the cavity of the thorax, by which the mouths of the wounds in the ventricles were stopped. Unquestionably this is a cause of temporary survival at times—another may be, the slanting direction of the wound, opening like the ureter in the bladder, so as to form a valvular apparatus; other mechanical explanations may probably be assigned.

Vander Wiel, Centur. Obs. Rar. vol. 2, p. 258, Leyd. ed. 1727, refers to Muys, to Tulpius, and others, already, or presently to be mentioned. One case referred to is that of Heers, (Obs. Med. lib. 1, c. 2, fol. 115,) in which, (the heart penetrated by four balls,) the person survived fifteen days.

Rhodius, Obs. Med. cent. 2. cap. 39, mentions one who lived nine days after a wound of the heart.

T. Bartholine, cent. 1. hist. 77, states a case where a person wounded through the heart, walked a considerable distance, and survived five days. He adverts also to the stag above mentioned, as being shot through both ventricles, and in which the wound was large enough to admit the extremities of three fingers. He has, cent. 3, hist. 12, moreover, detailed from Bacon, (Hist. Vit. et Mort.) a curious case, the outlines of which may be seen in the Esculapian Register, p. 125, of a man, who attentively contemplated his own heart, after it had been cut out from his body, and of another who was heard to speak several words of prayer, after the executioner had his heart in his hand.

Acosta, in Hist. Ind. lib. 5. cap. 22, mentions an Indian, whose heart being cut out in sacrifice, yet spoke to the Spaniards.

S. Blancard, Op. Med. and Chir. vol. 2, p. 110, relates the case of a soldier, who fighting, received a thrust under the left breast, penetrating the heart; he did not however cease fighting, but followed up his antagonist two hundred paces before he fell, the wound being capable of admitting the forefinger. This case I believe must be the same that is above reported from Parey; it is not so stated by Blancard, who has, however, so much regard for it, that he has re-

our science.* That such wounds are *necessarily* so, merely from the structure of that viscus, is not so evident; the fatality arises from the nature of its functions, and the absolute tendency to death, which, the unarrested discharge of blood, must inevitably promote; rather than from any incapability of its admitting of the same salutary influences of nature, that are conspicuous in every other muscle of the body; and hence there is no deficiency of recorded healing up of superficial wounds and ulcerations, &c. of the heart, where a due adaptation of cure had been sedulously attended to. It is also obvious, from the cases I shall adduce, that life has been prolonged even up to the sixteenth and seventeenth days, and through all the intermediate period; but which must obviously have been the result of some mechanical cause, by which the blood was not able to pour forth in an acute, but only in a chronic manner, if I may use these terms for this particular view of the subject. In none of these cases was the wound healed, nor was life in any of them preserved, even during one-third part of the period of the case which has given rise to these remarks. I am consequently led to believe, that in this case, the shot thus found within the cavities of the heart, reached them by a very different conveyance than that pointed out!—and that the spots assumed as eschars of their transmission, were but the marks of superficial injury, or mere lesion of the external surface by shot, that never penetrated beneath that surface.

I shall now detail some of those cases I have adverted to, in hopes that they will tend to corroborate my previous remarks, as well as the few that will subsequently be made.

Parey, lib. 10, cap. 30, gives an account of a gentleman, who, fighting a duel, received a wound which penetrated his heart, so large as to contain his finger; yet he struck some blows afterwards, and followed up his flying enemy above two hundred paces before he fell down dead.

Frederick 3d of Denmark, is reported to have shot a stag through both ventricles of the heart, who ran fifty paces before he fell.

* I speak of wounds from fire-arms or swords, &c. Certain it is, that acupuncturation has been effected, without death ensuing; but there is little analogy between this and the former. Glandorpius relates on the authority of Sanctorius, that the heart of a rabbit was perforated by a sharp instrument, the animal being alive at a period of several months. I have heard it stated that a physician of this city, intent on prosecuting some experiments on acupuncturation, had actually introduced a needle into the substance of his own heart. I know not how true this is, but if so, he is yet active, and apparently in perfect health.

Muller relates the case of a soldier, who lived fifteen days after a wound of the right ventricle of the heart. Heer relates several cases of a similar nature, and Tulpius mentions one who survived a similar wound for two days. Obs. lib. 2, cap. 18.

Saviard, Surgery, Obs. 113, states the case of a man, who lived four or five days after a wound, in which the heart had been thrust through, from the right ventricle into the left, across the septum medium; he ascribes this prolongation of life to the blood forming clots, after filling up the cavity of the thorax, by which the mouths of the wounds in the ventricles were stopped. Unquestionably this is a cause of temporary survival at times—another may be, the slanting direction of the wound, opening like the ureter in the bladder, so as to form a valvular apparatus; other mechanical explanations may probably be assigned.

Vander Wiel, Centur. Obs. Rar. vol. 2, p. 258, Leyd. ed. 1727, refers to Muys, to Tulpius, and others, already, or presently to be mentioned. One case referred to is that of Heers, (Obs. Med. lib. 1, c. 2, fol. 115,) in which, (the heart penetrated by four balls,) the person survived fifteen days.

Rhodius, Obs. Med. cent. 2. cap. 39, mentions one who lived nine days after a wound of the heart.

T. Bartholine, cent. 1. hist. 77, states a case where a person wounded through the heart, walked a considerable distance, and survived five days. He adverts also to the stag above mentioned, as being shot through both ventricles, and in which the wound was large enough to admit the extremities of three fingers. He has, cent. 3, hist. 12, moreover, detailed from Bacon, (Hist. Vit. et Mort.) a curious case, the outlines of which may be seen in the Esculapian Register, p. 125, of a man, who attentively contemplated his own heart, after it had been cut out from his body, and of another who was heard to speak several words of prayer, after the executioner had his heart in his hand.

Acosta, in Hist. Ind. lib. 5. cap. 22, mentions an Indian, whose heart being cut out in sacrifice, yet spoke to the Spaniards.

S. Blancard, Op. Med. and Chir. vol. 2, p. 110, relates the case of a soldier, who fighting, received a thrust under the left breast, penetrating the heart; he did not however cease fighting, but followed up his antagonist two hundred paces before he fell, the wound being capable of admitting the forefinger. This case I believe must be the same that is above reported from Parey; it is not so stated by Blancard, who has, however, so much regard for it, that he has re-

peated the case exactly at p. 585, though why, I cannot well imagine.

Diemerbroeck, in his Anatomy, Lond. fol. 1694, p. 310, states from Schenkius, that a student received a wound through both his ventricles, yet he ran the length of a whole street, and was in perfect sense of mind for an hour; he refers also to several of the preceding cases; and to others, from Sennertus and Johnson. He says likewise, that he himself saw, and dissected a young man in 1660, who was wounded by a sword, and walked fifty or sixty paces before he fell; being carried home, he came to himself, and lived nine days eight hours after the wound was received. It had penetrated directly into the upper part of the right ventricle.

Antonius Benevenius, in his surgical works, (An. 1529,) has a chapter entitled "Cordis pars patefacta inciso abscessu, & æger tamen restitutus." Not having his work, I know not what are the particulars of this case. It is probable however that the incision of the abscess, had no connexion with the interior of the heart.

Muys, in his "Rational Practice of Chyrurgery," p. 200, states that he witnessed "a Jew Arnhemium, wounded in the very substance of his heart, who, notwithstanding, twice a day, for six days together, before he died, came to his house on foot to have his wound dressed."

This writer says moreover, "that Galen relates as an eye witness, that the pericardium being corrupted, the heart lay sufficiently bared in the breast of a certain sick man, who notwithstanding recovered." I have not been able to find this statement in Galen; but he has in his treatise "de locis affectis," lib. 5, the following observation. "Si ad ventrem cordis, præcipuéque sinistrum, aliquando penetraverit vulnus, protinus cum multo sanguine vitam exhalabit animal. Si verò non ad ventrem usque pertingat, sed in cordis substantia consistat vulnus, ex ita affectis aliqui non solùm ea die, qua vulnerati fuerunt, sed sequenti quoque nocte potuerunt vivere."

That the heart is however in itself not very acutely sensible, is proved by its having been the seat of several severe diseases, without the patient suffering much; and the extraordinary operation not many years past, performed by Richerand, is equally a proof of the same. The most singular example of the fact, is, in my opinion, one detailed by the great Harvey, is his treatise "de generatione Animalium," and which, as I have never seen it quoted, I consider worthy of introducing in this place. See Exercitatio 52, entitled "De Sanguine, prout est pars principalis," p. 198, ed. Amst. 1662, 12mo. in which,

amongst other matter, he attempts, by the relation of the case, to demonstrate the little sensibility of this important viscus. I give the principal outline.

A noble youth, the eldest son of the illustrious Viscount of Montgomery, in Ireland, whilst yet a boy, by an unfortunate fall, fractured the ribs of the left side. An abscess formed, and discharged profusely; and so continued for a long time, as related to Harvey by himself and others. About the age of eighteen or nineteen, he travelled through France and Italy, and from thence came to London. During all this period, a very large and open space continued in his breast, so that the lungs, as it was supposed, could be therein both seen and touched. This being told to King Charles, as a great wonder, he immediately sent me to examine the young man. I found him apparently healthy, and explained the cause of my visit by the king's command. The part was immediately exposed to my view. The dressings being removed which he wore as a defence against any external injury, I saw, says Harvey, an immense cavity in the breast, into which I could readily pass my three forefingers and thumb. At the same time I noticed at its entrance a certain fleshy protuberance, reciprocally moving inwards and outwards, and which I carefully handled, (tractavi.) Astonished at the novelty of the case, again and again I examined every part, and diligently and sufficiently investigated it. Assuredly a large and old ulcer had miraculously healed, and was on its inner part, covered with a membrane, and invested with a firm skin about its edges. The fleshy part, which, at first sight I had taken to be a luxuriant growth of flesh, and which others supposed to be a part of the lungs, from its pulsation and difference of stroke, (a hand being applied conjointly to the carpus and heart,) as also from attending to the respiration, I plainly perceived that it was not a part of the lungs, *but the heart itself*, which a fungous flesh, as in sordid ulcers, covered exteriorly. This was daily cleansed by warm injections, and the dressings replaced. Which done, he exercised in the way most agreeable to him, and enjoyed his existence.

I carried this young man, says Harvey, to the king, that he might himself see, and feel with his own hands, so strange a thing; viz. that in a living and healthy man, without any injury, he might perceive the heart itself beating, and its ventricles pulsating, and touch it with his hands. Both the king and myself found the heart to be devoid of sensibility, for the young man, (except when looking, or by the sensation on the external skin,) knew not when we touched it.

I cannot resist inserting the following quotation from his 68th Exercitation, p. 294, as an evidence that we have probably, by means

of the civil wars, lost some very important works of this learned man, and which we must deplore, as never likely to be regained:—

"Atque hæc dum agimus, ignoscant mihi niveæ animæ, si (summarum injuriarum memor) levem gemitum effudero. Doloris mihi hæc caussa est: cum inter nuperos nostros tumultus, & bella plusquam civilia, serenissimum Regem (idque non solum Senatus permissione, sed & jussu) sequor, rapaces quædam manus, non modo ædium mearum supellectilem omnem expilarunt; sed etiam, (quæ mihi caussa gravior querimoniæ,) adversaria mea, multorum annorum laboribus parta, è musæo meo summanarunt. Quo factum est, ut observationes plurimæ, (præsertim de generatione Insectorum,) cum reipublicæ literariæ, (ausim dicere,) detrimento perierint."*

* It is rather a singular circumstance in the annals of medicine, that so few instances are recorded of the actual exposure of the heart, without injury. The two above mentioned were the only cases I had met with in my reading, until within a few days; when accidentally consulting the writings of Galen for a different purpose, I found in his 7th book, "De Anatomicis Administrationibus," Chap. 12th and 13th, as remarkable a case as either of those, from his own authority, (Ed. Ven. 1586, 7 vol. fol.—Vol. 1. p. 97,) and which is certainly deserving of being quoted.

At the conclusion of an excellent chapter, (12th,) entitled "Administratio Cordis & Pulmonis in vivo Animali," he points out the insensibility of the heart, (if we may so say,) in the following words. "At Corde denudato omnes ipsius functiones incolumes servare tibi propositum est, quemadmodum etiam servantur; siquidem & respirare similiter & clamare animal vides: ac si à vinculis ipsum liberes, currere, sicut prius consuevit. At, si vulnus vinculis adhuc comprimas, etiam cibum assumere, si esuriat, conspicis: & bibere, si sitiat. Et quid miri est? cum Marylli Mimographi puer *curatus sit, vivat que adhuc, etsi cor aliquando ipsi fuerit detectum.*"

Whether this case may not be sufficient to establish Galen as a bold and resolute surgeon, may be perhaps variously viewed by different readers. To me however it affords most ample proof of his anatomical skill, and of his prompt and sagacious decision; to which nothing but a free use of the dissecting knife on *the human subject*, could have possibly led him. In vindicating him from the continual assertions of servile copyists from each other; anxious to traduce the character of this great man, and to bring him down to a level with themselves, I venture to insert the case as related by himself; and I request that it may be borne in mind, that Galen lived nearly eighteen hundred years ago!

Cap. 13. "Historia pueri persanati, *cui os pectoris excisum erat*, & involucrum cordis computruerat."

"Quoniam vero semel curati pueri mentionem feci, nihil mali fuerit omnia, quæ ipsi evenerunt, percensere. Nam propter historiæ utilitatem, etiam si ad præsens opus nihil attineat, non abs re fuerit ea commemorare: Ictus puer ille in pectoris osse in palæstra, neglectus primum est, deinde parum probe curatus. Post menses quatuor pus in parte percussa apparuit: hoc auferre cogitans

Many other examples of a similar kind I could no doubt collect. These are however sufficient to show, that although life may be prolonged from accidental causes, even for several days, yet that no solitary case exists, wherein a wound penetrating the heart, has ever been known to heal. I cannot, therefore, for an instant suppose, that in Dr. RANDAL's case we can perceive an established fact of an opposite character; or that, presuming the shot to have penetrated the heart, any other event than that of death was to be anticipated. The whole circumstances of the case, if strictly scrutinized, forbid us, I think, to admit of that view which is taken of the subject. I have already said, that the scars seen, were probably only the relics of a *superficial* injury sustained, from the shot not possessing an impulse sufficient to go deeper, or perhaps glancing from the ribs. If a scar is sufficient to prove such an anomaly in a case like this, then indeed we may accredit a case of CABROLIUS, who "found in the heart of a thief, that was hanged, the remaining scar of a wound that had been cured, about two fingers long, and about the thickness of a sixpence." This, (which I quote from Diemerbroeck, p. 311,) will, I presume, scarcely be considered as proving the wound to have pass-

Medicus puerum incidit, & (ut putabat) subito ad cicatricem vulnus perduxit; postea rursus inflammatio oborta est, mox quoque abscessus: iterum sectus puer est, nec amplius cicatrix obduci potuit. Quapropter herus ipsius pluribus Medicis convocatis, *inter quos ego quoque eram*, deliberare super curatione pueri jussit. Cum autem sideratio, quam Græci σφακελον appellant, pectoris ossis affectus videreter omnibus, appareret autem & *Cordis à sinistra ipsius parte motus, nemo affectum os excidere audebat:* quippe arbitrabantur thoracis perforationem necessario futuram. Ego autem citra vocatam proprie à Medicis perforationem adhibitum pollicitus sum me excisurum: de absoluta vero curatione nihil promissi, cum incertum esset, num aliquid ex iis, quæ pectoris ossi subjacent, fuerit affectum, & quatenus affectum: Itaque regione detecta amplius, nihil in pectoris osse læsum apparuit, quàm quod ab initio statum vidibamus: quare etiam magis ad manus operationem venire sum ausus, cum jam fines, quibus arteriæ & venæ subhærescunt, utrinque illæsi occurrissent: cum vero affectum os ab eo potissimum loco excidissem, in quo talis pericardii vertex adnascitur: *cumque nudum cor appareret,* (quippe involucrum ipsius computruerat,) ob hoc quidem haud bonam statim spem de puero habebam, attamen in totum brevi temporis spatio persanatus est: quod non accidisset, si nemo affectum os abscindere ausus fuisset: *nemo autem tentasset, nisi in administrationibus anatomicis præexercitatus,*" &c.

I cannot believe that a man who writes and acts thus, could have limited his dissections to brutes alone. And if a good translation were made of his principal writings, our present readers would find very much therein, that within the last fifty years has been claimed by others! Thanks to our ignorance of the authors of the olden time!

ed into the cavities, and yet the argument is the same. The chief advantage in the case of Dr. Randal's patient is, that the shot were in the cavities of the heart; and the only question as to the difference of opinion between myself, and the apparently conclusive evidence of the senses, by autopsic demonstration, is, how they got there?

May I ask, whether, in a wound, or rather five wounds penetrating the heart, little or no hæmorrhage would be likely to take place, either at the instant, or at some period before the adhesive process was completed; is it likely, in a wound made by the "whole charge" of shot, the greater part of which seem clustered in the lungs, that in the course of a week the wound would be healing, and in three or four weeks be completely cicatrized, while such perforations existed in the ever moving viscus? Is it likely that three shot would continue permanently during sixty-seven days in the right ventricle, and two in the auricle? and how indeed, from the location of the wounds, could the latter have gotten into the auricle? Are we to suppose, that during sixty-seven days, these five shot remained unmoved, exposed to the full torrent of the circulating stream? Would this rapid motion not rather have impelled them into the pulmonary artery; and driven them to a part whose calibre they could not pass; and when of course dissection might have traced them? In opposition to these difficulties, where is the dilemma, if we suppose, that, as the lungs were loaded in various parts with shot, the deranged state of those vascular parts, inducing suppuration, &c. should, (although the external wound might heal;) nevertheless, after that period, bring on hectic fever and other symptoms; and that some of the vessels, eroded or absorbed by the pressure of a leaden shot, might at length permit some of the cluster to fall into its cavity; and at the moment of death, by mere gravitation, find their way into the cavities of the heart, in which they were seen and detected? Had the idea suggested itself, it is not impossible, that even other shot might have been found, that might have fallen into the vena cava, and only been arrested by some distant valve!

By such, or some process of a similar description, can I alone suppose that we can *plausibly* explain the various circumstances of the case! The *actual* penetration of the cavities of the heart, is altogether problematical; and if the shot did really find their way in the manner affirmed by the gentlemen who relate the case; I can only say, that it is an anomaly as regards the wounds of the heart; and being in total opposition to *every* hitherto recorded fact, it must stand as an insulated one in the annals of medicine!

ART. IX. *Inquiry into the Causes, Nature, and Treatment of Hernia Cerebri.* By J. W. HEUSTIS, M. D. of Cahawba, Alabama.

THE importance of the integrity and sound condition of the brain to the healthy, rational, and perfect performance of the various intellectual and corporeal functions of the human system, is a physiological fact, which few at the present day would have the scepticism or heresy to deny. Yet exalted as are the offices of this organ, experience teaches us that it is capable of enduring serious injury, without destroying or endangering life. That these injuries impair to a greater or less degree the functions of the animal economy, is obviously true; but the wonder and surprise are, that in many instances the effect should be so apparently trivial and disproportionate to the cause. Thus, experiments on the inferior orders of the animal creation show that the brain may be sliced away to near the basis of the skull without the immediate destruction of vitality; and even in the human subject the skull may be extensively fractured and driven in, the periosteum abraded, the dura and pia maters lacerated, and even a portion of the brain lost in consequence of the injury, and yet the patient recover. If then the brain can suffer such severe and extensive injury without destruction to life, the inquiry might suggest itself, what are the extent and degree to which this organ may suffer injury and violence without endangering the life of the individual. But as we have no scale by which we may accurately measure the grades of suffering and derangement of the animal system, we must leave this inquiry where we found it. This, however, we do know, that if the external violence or internal lesion exceeds a certain degree, death is the inevitable consequence.

Mere fracture of the skull, although extensive, is not generally fatal. And in cases of external violence done to the head, as from blows and falls, death is perhaps owing more to concussion than to pressure upon the brain, either from the bone externally, or from extravasation of blood within. It is true, that in cases of severe fracture, the intellect is generally deranged and impaired, the person lying more or less comatose and insensible, the stomach sympathetically affected, weak and irritated, rejecting its contents; the eyes squinting; the limbs paralytic, &c.; yet the presumption is that most of these symptoms are owing to concussion, which is always a necessary consequence, in a greater or less degree of such violence as causes a fracture of the bones of the cranium; and what is more conclusive upon this point is that such symptoms may, and do occur

without any fissure or depression having taken place. But although in injuries of this nature, life may not be destroyed by the mere pressure of the bones upon the subjacent cerebrum, yet where symptoms of the character above mentioned exist, we are certain that the injury received is urgent and severe, and such as demands the immediate interference and aid of medical discretion and surgical skill. The worst fractures that I have ever seen, were unaccompanied with laceration of the integuments; still the touch, the unequal feel, the tumid and ridgy hardness, the puffy softness, and in addition to all, the stupor and abolition of intellect, were strong and positive assurances of the extent and severity of the subjacent mischief. Upon making a crucial incision and dissecting up the integuments, we find, perhaps, extensive fissures in different directions; sometimes laying open the sutures, extending from ear to ear, or stretching obliquely, and bursting open the socket of the eye, with a considerable portion of the coronal or parietal bones broken and depressed; and not unfrequently a portion of the brain forced out upon the surface of the skull in the same manner that a heavy blow, or great pressure upon the yielding ice, causes the subjacent fluid to escape by the nearest opening. Now, as the cerebral mass fills completely the cavity of the skull, any considerable pressure upon it from any cause, or in any part, more than it is able to sustain, must produce a tendency in the brain to escape by any opening that may accidentally exist; as it is in this way, from great external violence and injury done to the brain and its membranes that hernia cerebri owes its origin, the foregoing remarks I trust will not be considered irrelevant to the subject.

In many instances these fungi or cerebral hernia are not attended with any dangerous or alarming symptoms; and it would therefore seem that the more aggravated constitutional affections, which sometimes accompany their existence, have not so necessary a connexion with these fungi as cause and effect, as they are owing to meningeal and cerebral inflammation, and extravasation of lymph into the ventricles, as the effect of such inflammation occasioning pressure of the encephalon, and thence giving rise to the various symptoms connected therewith. This affection rarely takes place, unless great injury has previously been sustained by the brain and its membranes; and a frequent cause appears to be the laceration of the meninges, from points and edges of the broken pieces, and spiculæ of bone detached from the inner table of the skull, and penetrating into the substance of the brain. Another circumstance favouring its occurrence, is the loss of a considerable quantity of bone, more especially if at the same

time a laceration of the membranes should have taken place; from both these causes, the natural support of the brain is taken away, and an increased momentum of blood being determined to the part by the excited and inflammatory action of the vessels; the latter, instead of a healthy secretion, throw out this exuberant and fungus excrescence.

Previously to its appearance, however, where the intellect is unimpaired, the patient is affected with more or less fever, preceded by shivering and chilliness, and accompanied with pain in the head. "His countenance is of a pale, dirty, cadaverous yellow. As the tumour increases, he has frequent sickness, is giddy, and reels like a drunken man."* After this, the pulse becomes slow and weak; he betakes himself entirely to bed, being no longer able to sit up; his mind becomes wandering and incoherent; he lies oppressed, and his pulse is a mere tremulous motion of the artery. In more aggravated cases, the symptoms of compression and irritation of the brain are more considerable and violent. The patient becomes delirious; is incapable of performing any voluntary motion; the muscles of the face and limbs are affected with convulsions; the countenance is distorted; the eyelids fixed and squinting; the jaws are spasmodically closed, or affected with convulsive motions, occasioning an involuntary grinding of the teeth. The tongue is either paralytic, or rigid with spasm, and articulation thereby rendered impracticable. Sometimes the convulsions extend to the whole body, and there is a perfect opisthotonos.

Where this affection comes on from gun-shot wounds of the head, in which the skull and membranes of the brain have been much broken and lacerated, accompanied by symptoms of constitutional derangement above mentioned, the event is often, and perhaps generally fatal. But when in cases where these symptoms have come on to a considerable degree, provided the person has been previously healthy, and the constitution unimpaired by sickness or intemperance, the danger may often be subdued, and life preserved by proper treatment.

Post mortem examinations in this disease have discovered traces of high inflammation in the pia mater, and the ventricles of the brain filled with a serous fluid, mixed with blood.

With respect to the nature and causes of hernia cerebri, considerable difference of opinion exists among practitioners of the present day; this want of unanimity in theory has accordingly led to a corresponding diversity of practice. By some, these affections are con-

* Charles Bell, Operative Surgery.

sidered as consisting, for the most part of coagulated blood. By the older physicians they were supposed, from their pulsatory motion, to be aneurisms; others imagined them to be occasioned by an ulceration of the cerebral mass, whilst some are of opinion that they are mere excrescences, occasioned by a morbid action in the vessels of the brain. It would appear, however, from the most generally received notions, that the opinion of Mr. ABERNETHY in relation to this subject, is not supported by the concurrent sanction and experience of others; nor does it appear to comport with that accuracy of observation and just discrimination, which we might reasonably look for in a gentleman of such reputation and experience in his profession as Mr. Abernethy. His opinion appears to be that these cerebral tumours consist of coagulated blood, effused from some wounded or diseased vessel beneath the surface of the brain. Relating the case of a young man who had died of this disease, he remarks that upon examining the tumour it was found larger than before, and of a dark colour, with an irregular granulated surface, which appearance seemed to be owing to coagulated blood which adhered to its surface, as the part had bled so much that one-half of the cap which the man had worn, was rendered quite stiff by it. "A part of this tumour being cut off where it was lacerated, appeared to consist of coagulated blood of a fibrous texture."

His reasoning and deductions from these premises are as follows:—

"The appearances on dissection clearly explain the cause of the symptoms which had taken place, and rendered it evident, that the disease under which this man had chiefly laboured, was inflammation of the pia mater. The nature of the tumour, also, was not less satisfactorily pointed out. It was plain, that in consequence of the brain being injured to some depth beneath the surface, disease of the vessels and consequent effusion of blood had ensued; that the effusion was, for a while, restrained by the superincumbent brain and its membranes; but these gradually yielded to the expansive force exerted from within, and at last giving way altogether, the fluid blood oozed and coagulated upon the surface of the tumour. It appears very probable that the disease frequently described by the term *hernia cerebri*, consists, as in this instance, of a tumour formed by coagulated blood; for an organized fungus could hardly be produced in so short a time as that in which these tumours are generally formed."

From a note subjoined at the end of his observations on this complaint, it appears that Mr. Abernethy himself only considered that form of this disease which corresponds with the above description, as a sub-species, and one, it would seem, of rather rare occurrence. He observes, in his note, that he never meant, in the recital of the cases above referred to, to deny, that the surface of the brain, when exposed and irritated, would throw out a vascular fungus; and that

it was only intended to describe a species of those appearances which had been denominated fungus or hernia cerebri. He further remarks, that in all the cases of true fungus cerebri which he had seen, when he first wrote the foregoing, the fungus grew so slowly, that it could not be mistaken or confounded with the appearances which took place in the cases he had cited. With what reason or propriety then, could Mr. Abernethy presume to erect a subordinate variety of this disease into a generic character, and founding thereon its causes, nature, and mode of treatment? Mr. Abernethy objects to this fungus being an organized substance from the rapidity of its growth. But, in answer to this, it may be remarked, that it is the nature of most fungi and excrescences to be extremely rapid in their growth. The part thus produced being destitute of healthy granulations, there is, consequently, not required in its formation that perfect elaboration of sound, assimilated, animalized secretion, which takes place in every portion of the body when unaffected by morbid action. I do not, however, pretend to deny, that fungus-like excrescences from the brain, similating hernia cerebri, have never occurred; though it is presumable that such cases are rare, and as they are easily distinguished, ought not to be confounded with the disease under consideration. The same may be said of that protrusion of the cerebrum and its meninges proceeding from internal suppuration, and consequent collection of matter beneath the surface of the brain. It is, however, possible, and even probable, that in some cases these fungi and abscesses may have a cotemporaneous existence: from the pressure of the membranes, against the rough and sharp edges of the bones, where the fracture had taken place, their integrity is destroyed by sloughing and suppuration, and the abscess may thus find its way into the substance of the brain; at the same time, a locally increased, vascular, inflammatory action existing, a fungus excrescence shoots up, instead of a deposition of healthy granulations.

In this affection there is always observable a very considerable pulsation in the part; not depending, as Professor Blumenbach, and the older physiologists believed and affirmed, with respect to the motion of the brain, upon the process of respiration, but produced entirely by the action of the arteries. That any doubt should ever have been entertained in relation to this matter is, indeed, the more astonishing, since, to the senses themselves, this cerebral motion is in perfect synchronous correspondence with the action of the arteries in other parts of the body. One thing worthy of observation in hernia cerebri is, that the more rapid the growth of this excrescence, the more perceptible and stronger, is this pulsation; showing that there

exists an increased determination of blood to the part, in the same way as in other instances of local inflammation and excrescences.

As far as my own observation extends, I am warranted in the opinion that this disease consists of a fungus excrescence from the brain, in consequence of preceding violence done to this organ, followed by increased vascular action in the part affected, producing an exuberant secretion of cerebral matter, which, being unrestrained in consequence of the deficiency of the natural support and covering of the brain, protrudes through the opening in the skull, and rises in the form of an unsightly mass above the surrounding integuments of the head. Upon removing excrescences of this description with the knife, they have appeared to be perfectly organized, of the colour and consistence of the cineritious portion of the brain, plentifully supplied with blood-vessels both arteries and veins, and which bled freely on being divided. If these fungi were merely lumps of clotted blood, according to the notion of Mr. Abernethy, we should never find such a perfect resemblance to the organization of living matter. True, they are in a great degree, and perhaps entirely insensible; but so, likewise, I believe, is the substance of the brain; and the same thing holds true with respect to various other healthy organizations of the body, as the bones, cartilages, fat and marrow. In further proof of the vitality and organization of hernia cerebri, I have known them after having protruded through the opening in the cranium, and acquired considerable size, become firmly attached to the integuments of the head and the surrounding parts; thence deriving an increase of vascularity and nutrition from the anastomosis of vessels, and to which the same increased and morbid action was communicated. I know it was the opinion of Mr. Hunter, an opinion subsequently adopted by Mr. Abernethy and others, that a coagulum of blood, formed by accidental extravasation in any part of the body, might subsequently become a living organized substance, possessing its own blood-vessels and nerves, with a principle of individual increment and nutrition, and thus laying the foundation for tumours and excrescences. In the course of his experiments and observations, instituted with a view to establish a living principle in the blood, Mr. Hunter was naturally induced to attend to the phenomena which took place, when that fluid was extravasated, whether in consequence of accidental violence or other circumstances. The first change which took place he found to be coagulation: and the coagulum, thus found, if in contact with living parts, according to Mr. Hunter, did not produce an irritation similar to extraneous matter, nor was it absorbed and taken back into the circulation, but, in many instances, preserved its living principle,

and became vascular, receiving branches from the neighbouring blood-vessels for its support; it afterwards underwent changes, rendering it similar to the parts to which it was attached, and which supplied it with nourishment. Mr. Hunter's opinion was, that when these coagula are not disturbed by the motion of the parts, they readily formed an intimate attachment through the intervention of new-formed vessels. But that when there is considerable motion in the part where this coagulum takes place, the attachment becomes diminished by the friction, rendering it, in some instances pendulous, and in others breaking it off entirely. This circumstance he illustrates by an instance which occurred in the examination of a dead body, in which, upon dissection, "there appeared lying upon the peritoneum a small portion of red blood, recently coagulated; this, upon examination, was found connected to the surface upon which it had been deposited, by an attachment half an inch long, and this neck had been formed before the coagulum had lost its red colour. This, steeped in water so as to become white, appeared like a pendulous tumour." In this way he explains the formation of those pendulous bodies, which sometimes occur attached to the inside of circumscribed cavities, as the knee-joint, for instance, the extravasated blood assuming the nature of the part in which it is effused. The cartilages in the knee-joint, therefore, appeared to him to originate from a deposite of coagulated blood upon the end of one of the bones, which had acquired the nature of cartilage, and had afterwards been separated. Mr. Abernethy, who adopts this opinion, pursues the subject as follows:—

"Had vessels shot through the slender neck, and organized the clot of blood observed by Mr. Hunter, it would then have become a living part, it might have grown to an indefinite magnitude, and its nature and progress would probably have depended on the organization which it had assumed. I have in my possession, a tumour, doubless formed in the manner Mr. Hunter has described, which hung pendulous from the front of the peritoneum, and in which the organization and consequent action have been so far completed, that the body of the tumour has become a lump of fat, whilst the neck is merely a fibrous and vascular texture. There can be little doubt that tumours form every where in the same manner. The coagulable part of the blood being either accidentally effused, and deposited in consequence of disease, becomes afterwards an organized and living part, by the growth of the adjacent vessels and nerves into it. When the deposited substance has its attachment by a single thread, all its vascular supply must proceed through that part; but in other cases the vessels shoot into it irregularly at various parts of its surface. Thus, an inorganized concrete becomes a living tumour, which has at first no perceptible peculiarity as to its nature, though it derives a supply of nourishment from the

surrounding parts; it seems to live and grow by its own independent powers; and the future structure which it may acquire, seems to depend on the operation of its own vessels. When the organization of a gland becomes changed into the unnatural structure which is observable in tumours, it may be thought in some degree to contradict those observations; but in this case the substance of the gland is the matrix in which the tumour is formed."

It unfortunately often happens with men of ardent minds and sprightly genius, that in their investigations after truth, or in the pursuit of a favourite hypothesis, some fitful and dazzling idea strikes their fancy with peculiar force, and is immediately seized upon as the golden key to unlock the storehouse of true knowledge and philosophy. Thus our great and much respected countryman, Dr. Rush, fancied that by his *unity of disease*, he was enabled to explain and elucidate every obscurity, and to reconcile every apparent diversity and contradiction in medical science: had he, moreover, been successful in discovering a *unity of remedy*, the grand consummation of the healing art would have been complete. There is still, however, one consolation left to the memory of departed worth, that, in this respect he has not been more unfortunate than his predecessors. What now remains of the fine wrought theories of Boerhaave, Cullen, Brown, and a host of others, built with so much ingenuity and labour? Nothing but prostrate ruins, which, unable to support and maintain the edifice they were intended to perpetuate, lie neglected; and are passed unheeded, except as monuments of the fleeting duration of man's boasted pride and ambition.

In this way, I apprehend, Mr. Abernethy has been led astray, by attaching too much confidence to the doctrine of Mr. Hunter, in relation to the vitality of the blood. Yet, if I understand him correctly, there can be but little difference between a coagulum of blood accidentally formed in any part of the body, and a regularly organized substance; since, according to his doctrine, the coagulum itself, in time, becomes organized, being furnished with nerves and vessels from the neighbouring parts. It would seem that an opinion so much at variance with the observation and experience of almost every surgeon, would scarcely gain sufficient credit to stand in need of refutation; yet, when a notion, however erroneous, has the sanction of authority to support it, it ceases to be trivial and unimportant. It must be familiar to every practitioner in surgery, that an effusion of blood, from wounds, or other causes, and the consequent formation of coagula in any part of the body, so far from becoming organized, and consolidated with the neighbouring parts, acts as extraneous matter;

if in small quantity, it is absorbed, as if the coagulum is too large to admit of being removed by the absorbents, it acts as an unnatural irritant, giving rise to inflammation and suppuration. Thus, we often observe, that a part of the body, that has been wounded and bruised, distended and tense with coagulated blood, thrown out from blood-vessels that have been ruptured by the violence. If the part be cut into, as is frequently necessary in wounds of the head, we find that this swelling is occasioned, in a great degree, by the cause here stated; yet in a few days, in favourable cases, this effused blood is all taken up by the absorbents, and eliminated from the system as extraneous matter. In the early part of my practice I once attempted to heal a deep incised wound full of coagulated blood; the wound had been received some considerable time before I saw it, and the coagulum was hard, and firmly united to the neighbouring parts. Finding it somewhat difficult to remove this coagulum, I brought the edges of the wound together by the interrupted suture; but I was disappointed in expecting a union by the first intention; the part inflamed, became swollen and painful; I now found it necessary to open the wound and remove the coagulum, and subdue the inflammation and promote suppuration by the use of emollient poultices. So much for Messrs. Hunter's and Abernethy's coagulum becoming an organized portion of the body.

In corroboration of the above opinion I am happy to adduce the testimony of Mr. Charles Bell. Upon this subject he remarks as follows:—

"The observations which I have made, and the opinion I have formed, are so different from those of Mr. Abernethy, that I think myself called upon, in some degree to extend the consideration of the subject." * * * "I have dissected a case very much resembling that described by Mr. Abernethy, in which the section of the brain around the root of the tumour showed many spots of extravasation; and it would readily occur to any one, that this tumour had been occasioned by one of the larger vessels giving way, and pouring out a coagulum. But these spots of extravasated blood attend most ulcerations of the substance of the brain." * * * "Mr. Abernethy conceives that the bursting of the vessel within the brain is a consequence of the blow; but I have seen the disease arise after a venereal caries of the skull, in which the whole thickness of the bone had exfoliated. Further, the surface of this tumour bleeds when torn or cut. Not only it bleeds if it be torn off, but the abraded surface bleeds. This is not like a coagulum. 2. It shrinks and collapses upon death, which is certainly a mark of a part having circulation within it. 3. I have a preparation of this disease, where an ulcer passes from its base into the lateral ventricle, and where the ulcer communicated outwardly, and yet no drop of blood or coagulum was seen upon the surface of the brain, or in the cavities. 4. It is not formed of concen-

tric lamina, as the coagulum of an aneurism is. The blood never bursts from its surface, as it should do even from a venous tumour, which had power in the first instance to burst the membranes of the brain. It is affected like spongy granulation from caustic. A degree of compression, equal to the compression of a considerable artery, will not subdue it when its growth has got head. 5. It has a fibrous structure, and when it is dissolved in death, it hangs in shreds, not like a coagulum. Lastly, the peculiar disposition to this disease is not shown merely in the tumour, but is evident on the margin and inner side of the ulcerated cavity."

Some have contended that the external protrusion is vicarious of more serious internal injury, which would otherwise give rise to apoplexy. Mr. Abernethy's opinion was, that this apoplexy would be occasioned by the effusion of blood into the substance of the brain, were it not that the deficiency of bone allows it to expand, by pressing the surface of the brain and its membranes through the vacant space. This, however, is all extremely problematical. As the cavity of the cranium, in its natural state, affords no vacuum, should any morbid action take place in the substance of the brain, giving rise to the production of a tumour or excrescence, is it not fairly presumable, from what takes place in other instances and situations, that the growth of the latter would be accompanied by a corresponding absorption and diminution of the former? Such a growth would, doubtless, be productive of derangement in the functions of the nervous system, and might, by its unnatural irritation, give rise to convulsions, but without occasioning apoplexy by its general compression upon the encephalon.

Much uncertainty still exists with respect to the mode of practice in this disease. Mr. Abernethy advises not to interfere with the treatment of the complaint, unless some bad symptoms should precede the appearance or accompany the continuance of the tumour. But if the tumour continues to increase, and if the patient suffers a train of bad symptoms, apparently arising from irritation and pressure made on the brain, going upon the notion, that the coagulum, of which he supposes the fungus to consist, is enlarged internally, or that by plugging up the orifice in the bone, it prevents the escape of some fluid collected within the cranium, in such cases he advises to enlarge the opening in the bone in proportion to the extent and increase of the tumour. The only apprehension of Mr. Abernethy in relation to such practice, appears to be from excessive hæmorrhage. "But although by thus allowing a free escape to the effusion of blood, we may prevent the injurious effects of its pressure on the brain, yet the de-

gree of hæmorrhage may endanger the life of the patient." It is well that Mr. Abernethy "either feigned or felt" danger in any way from such practice, lest the young and inexperienced might have been led from his recommendation into a measure as painful and imprudent as it would probably be hazardous and unsuccessful. Yet I am far from thinking that Mr. Abernethy has attributed the danger to be apprehended from this mode of treatment to the right cause; and as in the first instance he was wrong in theory, so, in the second, he is correspondingly erroneous in practice. Such a recommendation coming from a gentleman of less reputation than Mr. Abernethy, would be looked upon as grossly empirical and absurd. Thus, if we were to pursue the plan here suggested, "to enlarge the opening in proportion to the extent and increase of the tumour," we might go on removing the portion of cranium circumscribing the excrescence, till the latter might exceed the bounds of all reasonable calculation; for as this tumour seems to be confined and limited in its extent by the unyielding circumference of the opening, we may with probability presume that were this limit to its expansion removed, the tumour would proportionably increase in its dimensions. Where the hæmorrhage is considerable, or, in other words, where the growth of the hernia cerebri is rapid, Mr. Abernethy recommends the removal of the *coagulum*, or the tumour, and to expose the cavity in the brain, in order to learn whether suffering some sudden loss of blood to take place, together with the exposure of the bleeding vessel, might not produce a beneficial change, and a cessation of the hæmorrhage, in the same way as the removal of the dressings from wounds in other instances, and the exposure of the bleeding vessels to the air, puts a stop to the further effusion of blood. ' This, however, appears to be completely hypothetical, unsupported by probability or experience.

I come now to speak of the practice of removing such tumours by excision. It is now sufficiently ascertained that little danger is to be apprehended in the free removal of such tumours with the scalpel. The benefit thence resulting may be ascribed to two causes. 1. The local depletion of the vessels of the part, caused by the hæmorrhage, in the same way as topical bleeding, by cupping, and leeches, relieves local inflammation in other instances and situations. 2. The diminution of the quantity and impetus of blood to the part, in consequence of the lessened demand for the supply; for as the tumour is a morbid growth, every portion of this that is removed must proportionably lessen the extent and amount of diseased action. This practice has been long recommended in books, though but little pursued in practice. Mr. Charles Bell, in his Operative Surgery, says,

"the tumour should be cut off freely." It has been objected to this operation as a practice liable to produce dangerous and fatal hæmorrhage.* Such an accident, however, appears to be more imaginary than real. If there were any well-authenticated instances of death produced by such a cause, there would then be serious grounds for apprehension; but as no such cases have come within my knowledge, I must regard the objection as gratuitous and unfounded. I have myself repeatedly removed such excrescences with the knife, without any pain or inconvenience to the patient; and as to the hæmorrhage, it was very inconsiderable, the vessels of the part being small, and soon closing from exposure to the air. In confirmation of this practice, the following case is in point. It is quoted by Mr. Abernethy from the *Mémoires de l'Académie de Chirurgie.*

"A young man received a blow on the right parietal bone, which occasioned a fracture; some bone was removed, and a hernia cerebri was afterwards produced, which was repeatedly pared down with the knife. On the thirty-fifth day from the accident, the patient having intoxicated himself, while in this state, slipt his hand under the dressings, and laying hold of the protruding coagulum, (fungus,) tore it away with violence. The next day the surgeon found that almost the whole of what he considered as corrupted brain was removed, and a vacancy left so deep that he could see nearly to the corpus callosum. From this time forwards the parts went on healing, until they got quite well; but the patient continued to labour under a paralysis of the left side, which had supervened the day after he received the blow."

As the inflammation surrounding the fungus is frequently attended with suppuration, and as the tumour by completely plugging up the opening in the bone, prevents the escape of the water, we hence see an additional reason for making a free excision of the tumour down to its base. Mr. Bell, in his surgical cases, says "he was obliged to shave away the tumour, and to push a lancet into its root as often as the stupor and other symptoms showed that matter was lodged there, by which the patient was uniformly relieved, and afterwards recovered."†

* Speaking of the advice of Mr. Bell to cut the tumour freely, Dr. Dorsey says, "This, I conceive, could not answer any good purpose, and would probably be productive of very copious hæmorrhagy, which in the exhausted state of the patient might prove fatal."

† This recommendation of pushing a lancet into the substance of the brain, in order to arrive at the matter situated beneath, might appear rash and hazardous; but provided the brain near the origin of the nerves is not disturbed, there is no immediate danger to be apprehended from wounds of its convex surface: thus, in cases of hydrocephalus internus I have several times plunged an abscess

But there is another and more powerful way of controlling this morbid action, where the hernia cerebri is accessible and partial, viz. by pressure; this method is sometimes resorted to in cases of tumours in other situations, and in some instances of local inflammatory affections. Although this practice in the treatment of fungus or hernia cerebri is not altogether new, yet among the older authors we find it only casually mentioned as a doubtful expedient, that might be resorted to by way of experiment, but not recommended with that confidence and assurance in which a physician feels warranted in favour of a remedy of known utility and importance. Nor is the practice in this particular much better established at the present time. We find, however, an exception in Mr. Charles Bell, who, in relation to this subject, observes "the tumour should be cut freely off; and after this, there should be slight and equable pressure." * * * "When I say the tumour should be cut off, I should more fully express that pressure is absolutely necessary." This pressure should be sufficient to repress the growth and protrusion of the tumour, without being so great as to produce uneasiness, pain, or any unfavourable symptoms. This, however, must be obvious to every practitioner of ordinary discretion. Some have represented this mode of treatment as dangerous, but in the few trials I have made of it, I have not found it to be productive of the slightest inconvenience; whilst at the same time, it completely succeeded in suppressing the growth, and eradicating the fungus, after repeated removals of the tumour with the knife had failed. The manner in which this pressure should be made, is not perhaps material. I have myself made use of pressed sponge, agreeably to the advice of Dr. Dudley of the Transylvania University. A piece of lint, spread with simple cerate or basilicon, is applied next to the tumour, and a flat piece of sponge made to correspond with tolerable accuracy to the opening in the skull through which the hernia protrudes, is placed over this, and the whole secured with proper bandages passed round the head, and under the jaws, in such a way as the discretion of the surgeon may best dictate.

Previously to the application of this pressure, however, it will be necessary to shave off the tumour to a level with the skull, or rather to a level with its interior, concave surface, which may be easily done by causing the patient to keep his head in a depending position, whilst we are using the scalpel; by this position, the fungus, by its own weight and the pressure of the brain, is forced and drawn out to a greater length, and

lancet, through the meninges and the envelope of brain covering the effusion, without thereby giving rise to any untoward symptom.

we are thus enabled to remove it more completely. After this pressure has been continued two or three days, the excrescence will be found to have receded, and shrunk within the cranium, and in place of the tumour will be left a hole, or cavity in the brain. Upon observation, it will appear that the pulsation of the part has become much less considerable, corresponding with the healthy arterial action: so that the disposition to the formation of this fungus being subdued, the cavity has only to fill up with a deposition of healthy matter, fit for the various necessities and functions of the nervous system. We might here enquire in what manner does pressure act in removing and in preventing the growth of hernia cerebri? The removal appears unquestionably to be the result of absorption; and whether this is effected by veins or lymphatics is not material to the purpose. According to commonly received opinions, such a removal of excrescence would be ascribed to increased activity of the absorbents; but if we suppose what is equally, and perhaps more probable, that the pressure made upon the vessels controls and impedes the further deposition of morbid matter, the action of the absorbents remaining the same, will soon be adequate to the removal of the matter forming the fungus. However this may be explained, it is more interesting and important to know that the effect of pressure in preventing the growth of hernia cerebri is too well established to admit of any doubt. Sometimes these fungi may be suppressed and removed by pressure made with strips of adhesive plaster, drawn with a degree of tension over the tumour, and secured to the integuments on both sides of the opening.

A few weeks since I had a case of this description. It occurred in a negro girl, about ten years of age, who had been knocked down insensible, by a tree falling and striking her on the head. The skull was extensively fractured in every direction, and a portion of the parietal and frontal bones, about half the size of the palm of the hand, depressed and driven in upon the brain, and a small quantity of the latter escaped at the wound. The fractured pieces were removed, the depressions elevated, and the ordinary dressings applied. None of the integuments were removed, as was the practice of Mr. Pott, and the surgeons of his time.* A few days after the accident, a

* I apprehend that the practice of removing the scalp in cases of injury of the head requiring the use of the trephine, is not yet entirely laid aside. It is a little surprising that a surgeon of Mr. Pott's good sense should ever have recommended such a measure. Every consideration urges the propriety and importance of preserving the scalp, even in cases where it has been extensively torn and lacerated. In the first place, where the integuments are preserved, much time is gained in the healing of the wound; secondly, the cure is more

fungous protrusion took place at the point where the greatest injury had been inflicted, attended, as usual in such cases, with strong arterial pulsation of the part. In subduing the fungus, I employed no other means, than, at each dressing, confining a strip of adhesive plaster over the protrusion: in this way the hernia in a few days disappeared, and the child recovered.

Perhaps pressure may not be equally necessary and proper in every case of hernia cerebri. There may be instances in which even a moderate degree of compression might prove prejudicial. If any such should occur, they must be such as from the first have been attended with great constitutional disturbance, together with great local irritability of the part more particularly affected. Thus, two cases are quoted by Mr. Abernethy, one recorded by SCULTETUS, in his Armentarium Chirurgicum, Obs. XIX.; the other in the London Medical Journal, No. X. p. 277, in which repeated attempts were made to prevent the growth of the tumour by compression: one patient died at the end of a month, the other not until nearly six months after the accident. In the brain of each was found, upon dissection, a large cavity, which had been formed by the accumulation of a fluid that could not escape, on account of the aperture of the bone being closed by the tumour. I think, however, the reason of the failure in the two instances here mentioned is sufficiently obvious; since it appears, that pressure was used, without the precaution of previously cutting off the tumour; we are, therefore, not surprised that failure should have taken place; for it often happens that the local irritability and general irritation increase in proportion to the growth and extension of the tumour; and to apply pressure under these circumstances, would inevitably aggravate the disorder already existing in the nervous system. But by previously cutting off the fungus to a level with the interior concave surface of the skull, we at once remove a source of great irritation, and at the same time allow room for the exit of matter, should any have formed in the vicinity of the part. The tumour in this manner being removed, pressure might now be applied with a

perfect; for, instead of an ugly cicatrix, bare and naked, the sound integuments covered with hair remain, and no trace of the injury is left but a narrow seam. Nor is the removal necessary in order to facilitate the operation, or for the purpose of rendering the subsequent dressings more convenient: for whatever advantage may be gained in this way, will be entirely on the part of the operator, to the great injury and expense of the patient: and should any inconvenience arise from thus preserving the scalp, it is much better to make the incision and dissections a little more freely, than to occasion the irreparable injury of entirely removing the integuments over the seat of the injury.

reasonable and almost certain prospect of success. The length of time for which it may be necessary to use it, will depend upon the effect produced; the object being to restrain the morbid action, and to prevent the cerebral growth from rising above the proper level; thereby affording time for the membranes, which are here deficient, to form and extend themselves over the newly-organized cerebrum. It would seem that hernia cerebri has its seat not altogether in the superficial vessels of the brain, but at some depth beneath the surface; for when the morbid action which supports it is subdued, a considerable cavity occupies the seat of the tumour; this gradually fills up with a healthy organized deposite of cerebral matter. During this process, all applications, as washes, dressings, &c. to the cavity, should be avoided, and a simple plaster of basilicon applied over the opening, to protect the brain beneath from the action of the air.

ART. X. *Method of treating Fracture of the Thigh Bone.* By WILLIAM C. DANIELL, M. D. of Savannah, Georgia. [With a plate.]

IN the summer of 1819, I was called into the country to see a child of Mr. Harboch's, about seven months old, whose left thigh had been obliquely fractured near the middle of the bone, by the nurse falling with him in her arms. I applied the many-tailed bandage with four thin splints about three inches long, to confine, as well as I could, the broken ends of the bones in apposition.

Upon visiting the child the following day, I found the fractured limb about the third of an inch shorter than the other, from the lapping of the ends of the broken bone. The patient being feverish, a laxative was directed. The dressings were renewed from time to time for about a week, when the feverish symptoms had subsided, and the child become in some measure reconciled to his confinement.

The shortening of the limb still continuing, rendered it necessary to adopt some means to counteract the contraction of the muscles, and retain the ends of the broken bone in apposition. The heat of the season, as well as the age of the patient, rendering the use of the ordinary splint, (Physick's improved Desault,) and bandages objectionable, I adopted the following mode of treatment: I passed a roller of muslin around the chest of the child several times, to which I attached a bandage on each side, and extended them above the head, and fastened them to the head-board of the bed. This was

done for the purpose of preventing the patient from being drawn down to the foot of the bed by the extending power. I then passed a small silk handkerchief around the ankle and foot of the fractured limb, and tied the ends together at the sole of the foot. To these united ends of the handkerchief I attached a small cord, which was passed over the foot of the bed, where it suspended a small weight which was designed for the extension of the limb.

The many-tailed bandage, with the four small splints, were continued as heretofore. In due time the broken bone united without any shortening or other deformity.

In 1824, and five years after the fracture, I examined the limb, and found it of the same length and appearance with its fellow.

Attributing my success in the above case to the manner in which I had treated the fractured limb, I became desirous of applying that mode of treatment to other cases of a similar kind. With the assistance of my friend Dr. Richardson, I have recently treated a case of oblique fracture of the thigh bone after the following manner:—A piece of poplar plank, long enough to extend from just below the buttock to eighteen inches beyond the foot was made on the surface slightly concave to receive the thigh—the upper end was cut into a semilunar form to fit it the better to the buttock, and made six inches wide—the lower end was four inches wide. On each side of the lower end was attached a piece of board three inches high, extending up to the knee, with a gradually reduced height. A piece of board five inches high, was than fitted in the lower end, at a right angle with the lower board. In the middle of the upper edge of this piece was placed a small wooden roller, with a concave edge, which was retained by a wire axis. The lower end of this splint, which projected beyond the foot of the bed, was secured by passing a screw through the bottom piece into the foot-board of the bed. The fractured limb was then placed in this splint. The many-tailed bandage was applied over the fractured portion, (the bones having first been placed in apposition,) over which at equal distances a part and around the limb, four thin wooden splints, six inches long, were placed and secured by muslin strips. A bag of dried moss was then applied on each side of the thigh, and secured by tapes passing under the board supporting the thigh, and over the limb. A silk handkerchief was then passed around the ankle, and tied at the bottom of the foot. To this projecting portion of the handkerchief was fastened a small flaxen cord, and that passing over the roller placed in the end of the case, supported a small weight. A muslin bandage was passed around the chest to which bandages were fastened for the purpose of fixing the

body to the head-board to prevent its being drawn down. This was however soon found to be superfluous, as the weight of the body was quite sufficient for the purpose of resistance to the extending power, and was consequently discontinued. The dressings were renewed once or twice a week, according to circumstances, and the bones united readily, and without any shortening of the limb.

That portion of our patient's mattrass which supported the breech was made removeable, by which arrangement the pan could be used without inconvenience.

Whenever any shortening of the fractured limb was observed, the leg was gently raised and extended to the proper distance, where it was retained by the weight attached to the cord. And here I will observe, that the cord and weight are rather designed for retaining the limb properly extended than for extending it. The latter it is known is readily performed. The importance as well as the difficulty of keeping up that extension, has been felt by every surgeon who has had a fractured thigh to treat. I flatter myself that the above mode of making and maintaining the extension, will be found an improvement. It has certainly been such in my hands.

Plate IV. figure 1. is a view of the splint case. Figure 2. exhibits the fractured limb in the splint case, with the many-tailed bandage and the small splints applied, and the extending cord and weights, but without the bags of moss.

It would be extremely difficult for any person who had not witnessed the treatment of this case, to appreciate the advantages which resulted from the mode which we adopted of keeping up the extension of the fractured limb. The patient could sit up in his bed without deranging the dressings. The only part in the use of which he was restricted, was the fractured limb. If in his movements he was thrown lower down in bed than was proper, he could draw himself up without deranging the dressings or displacing the fractured bones.

But the great and important indication that is fulfilled by this mode of treatment—and by this alone have I seen it properly fulfilled—is that there is a constant power in operation to counteract the contraction of the muscles of the fractured limb. That power is the weight suspended over the roller to the foot; and it is a power which from its constant action must necessarily exhaust the muscular contraction. Hence it never can occur where this mode of extension is properly applied, that the fractured limb will be shortened when the bones have united.

I believe that a weight of two pounds will in most cases be sufficient. My own experience however is too limited to enable me to

speak with confidence. It is a matter which the discretion of the surgeon will readily adjust.

In treating a fractured thigh bone, it has been deemed of the highest importance to make the extension and counter-extension as near as possible in a line with the fractured limb and the course of the muscles to be acted upon. The merit of Dr. Physick's improvement upon Desault's splint, consists in an approximation to this. It is, however, only an approximation. In the treatment of the case detailed above, the extension and counter-extension were necessarily in a line with the broken bone and the course of the muscles to be acted upon, because the extension is made upon the foot, and the counter-extension consists in the weight of the body above the thigh. Let it not be supposed that such weight is insufficient for all the purposes of counter-extension; I believe it will upon trial be found ample. If it should not, the body of the patient may readily be retained in place by bandages fastened to the head-board as suggested.

Some surgeons are in the habit, as soon as called to a fractured limb to place the patient to harness, and at once subject him to all the pain and distress of splints, bandages, extensions and counter-extensions. Such a course is I think to be condemned not only as unnecessary severity to the patient, but also as adding in many cases additional causes of irritation and fever. I have been in the habit myself of barely at first placing the ends of the bones in such a relation to each other as would prevent irritation—always feeling satisfied, if at the end of the first week, or even early in the second, every measure had been adopted which promised to promote a favourable union of the fractured bones. By this course the patient is gradually accustomed to his confinement, and bears much better the necessary restraints of the treatment than when he is at once subjected to the whole of them.

Savannah, Georgia, 27th March, 1829.

ART. XI. *Remarkable Urinary Calculus.* By R. D. MUSSEY, M. D. Professor of Anatomy and Surgery in the Medical Institution at Dartmouth College, Hanover, N. H. [With a plate.]

THE calculus, of which fig. 3, Pl. IV. is a representation, I received in the autumn of 1826, from my friend Dr. SAMUEL NILES, of Post Mills, a small village in Thetford, Vermont, fifteen miles from this place. He informed me that he took it, soon after death,

from the bladder of Mr. Michael Comstock, a farmer, aged about sixty, who had resided several years in the same village with himself, and who died a few months before, with symptoms of vesical disease, which he presumed to have been caused by the calculus. He remarked that he found the bladder greatly thickened and inflamed. Being then in haste, I parted from the doctor without attending to a detailed history of the case, intending to possess myself of a circumstantial account of it at a convenient time. This, however, was the last interview I had with Dr. Niles, who, during my absence from this part of the country, the ensuing winter, suddenly died. After my return, I visited the village where the doctor and the patient had lived, and obtained of Mr. Daniels, a respectable and intelligent man, the following account of the case.

"Mr. Comstock, who had been his near neighbour, and with the state of whose health he had been acquainted for several years, died in April, 1826. A difficulty in passing his urine, of which he had occasionally complained for nine or ten years, had, in the latter part of that period, gradually increased. During the last year of his life, labour, especially at hoeing, greatly aggravated his pain in the region of the bladder. Four years before his death, he had a violent attack of pain in the region of the bladder, which lasted five or six days, and seriously threatened his life. He was subject, afterwards, to attacks of the same kind, varying in severity, and occurring, on an average, once in three or four months. The attack, of which he died, lasted about ten days, and during this sickness, his chief complaint was of pain in the region of the bladder. He was occasionally sick at the stomach, was feverish, and rested but little." Mr. D. remarked that he was "present at the examination of the body of Mr. Comstock, and saw Dr. Niles remove the stone from the bladder. The doctor took the stone with his fingers, from near the neck of the bladder, where it lay entirely unconfined." Mr. D. "saw the interior of the bladder, it looked very red. The doctor examined other parts of the body, but found no other appearance of disease."

The calculus was carefully sawn through its central portion, and examined by Mr. Augustus A. Hayes, a gentleman distinguished for his skill in analytical chemistry. The following account is in his own words.

"*Physical Character.*—Colour, after washing, light hair brown. Surface frosted with minute white crystals; translucent, and appears of a yellowish-brown by transmitted light. Its lustre, when broken, is shining, and the recent fracture, presents, with the microscope, facets of minute crystals. Its fracture exhibits its structure, which is derived from concentric layers, presenting shades of hair brown, and leaving an irregular minute cavity in the centre, which extends through all its ramifications. At the point where the branches unite with the mass, the concentric lines correspond to their outer circumference.

"*Chemical Character.*—In diluted nitric acid it dissolves slowly without effervescence, except a few flocculi of animal matter. The turbid solution, by evapo-

ration at a temperature equal to 212°, leaves a white pearly residuum; this exposed to a heat of 300°, becomes orange-coloured in parts. Diluted muriatic acid dissolves a minute quantity, and leaves it unaltered by evaporation.

"On platina foil, over a spirit lamp, it blackens, and evolves an animal and urinous odour, which ceases before the foil becomes red hot. If the temperature is raised to redness, it ignites and burns, (a character of importance when animal and vegetable matter exist in a state of mixture,) leaving a residuum presenting all the characters of lime in a pure state.

"A portion of the calculus was tested for phosphoric acid, by the process adopted by Berzelius; none was detected.

"A fragment after having been heated, was dissolved in muriatic acid, and the lime precipitated by oxalate of ammonia; by evaporating and heating, no fixed salts were obtained.

"From these experiments it is inferred that the calculus is oxalate of lime, mixed with animal matter."

The branched portions of the calculus, a cavity in each of them communicating with a cavity in the central portion, and these cavities containing animal matter, are circumstances which tend to remind one of zoophytic formations, and to lead to the conjecture that something like organization and a low degree of vitality may possibly have existed within these cavities. Be this as it may, the calculus is rare, and suited to excite curiosity.

While on a visit at the south, which occupied most of the winter of 1826–7, I had an opportunity of showing this specimen of calculus to a number of eminent surgeons and mineralogists, connected with the most distinguished medical institutions in our country, none of whom had ever seen or heard of any thing like it. Some months afterwards, Mr. Charles U. Shepard, of the mineralogical department at Yale College, had the kindness to write me, directing my attention to a description in the Philosophical Transactions, of a calculus somewhat similar, found in France about a hundred years ago. The following account of it is extracted from Martyn's Abridgment, Vol. 9, p. 172.

Of a very extraordinary Calculus taken from the Bladder of a man after death. By the Marquis de Caumont.

The Marquis de C. states that he was induced to send to the President of the Royal Society, the drawing of an uncommon stone, found lately in the bladder of a dead body, which he had engraved in his own presence. It is exactly conformable to the original. The most able physicians and anatomists assured him that they never saw any thing like it. He can vouch that the engraving, though very exact, does not come up to this singular work of nature; the ten branches of

which, spreading from the centre, have some resemblance to those of certain plants. It was a matter of difficulty to think, that the system of juxta-position, which is employed to explain the growth of common calculi, can hold good in this case. He dares not, however, advance, that vegetation has any share herein; though the shape of the stone, of the canals or papillæ, which seemed destined to convey the nutritious juices, in some measure favoured this hypothesis. He thought proper to join to the figure of the stone, an account of the patient's distemper, sent by Mr. Salien, surgeon of Lisle. The fact itself is curious, and may prove advantageous to lithotomists. They will understand, that in a similar case, no other method but the high operation can facilitate the extraction of a foreign body, whose branches must necessarily cause great lacerations, unless they found some favourable circumstances, and that the contexture of it were brittle enough to break it before being extracted.

Mr. Salien's account of the above case.—Joseph Dasse, of Le Thor, a small town at a short league's distance from Lisle, in the county of Venaissin, sixty-six years of age, of a robust constitution, a dealer in corn and cattle, having never complained of any indisposition, began, on the 14th of February, 1731, to feel some difficulty of making water, attended by a smarting about the glans, but was not detained from his pursuits. On March 28, 1732, he was seized with a true ischuria, which pained him much. Mr. Salien was sent for on the evening of the 29th, and drew off six cups of water, each containing a pint and a quarter. The patient got immediate relief, having no pains or fever, and thought himself cured. But the pains returning the next night, he removed to Lisle on the 30th, and had his water drawn regularly morning and evening, till April 15th, having, in the mean time, no pains nor febrile symptoms, nor did he lose flesh. On the 15th of April he supped as usual, but half an hour after was seized with a violent shaking fit, which lasted an hour, on which a burning fever ensued, attended with great thirst, head-ache, and restlessness. Mr. S. saw him at 8 P. M. his usual hour, and attempted to draw his water, but found an obstacle, viz. a stone obstructing the passage of the catheter. He turned the instrument to the left, and hit a branch of the stone; the surgeon then drew it back a little, turned it to the right, and hit another branch of the same stone, and arrived at the conclusion that there were several stones in the patient's bladder; and that, if the bad symptoms continued longer, there was no chance of the patient's recovery. The bad symptoms continued, hiccough came on the 20th, and the patient died the 28th.

The extraordinary figure of this stone may furnish matter of much

reasoning to philosophers to know how it could be formed in the bladder, and yet not be troublesome to the patient for so long a time, and what had given it so particular a figure, and so regular a shape.

Sir Hans Sloane on the same case.—The abovementioned stone is so singular, that among hundreds in the possession of Sir Hans, none could compare with it. Once he had a patient sixty or seventy years old, who had great difficulty in passing his urine, and besides was unable to sit in his chair without suffering pain in the region of the *peritoneum*. By the aid of soft medicines and waters, he voided by the urethra a stone flat in the middle and smooth, but had five points resembling the rowel of a spur. The points of the rays were sharp, but there were no asperities or crystallizations on their surfaces. It was small, so as, after many days, to pass along the urethra; but if it had not passed the neck of the bladder, but remained in it, in all probability it would have attracted matter to all the points or rays, and increased in all dimensions.

Fig. 4. Plate IV. is copied from the engraving of this calculus in the Philosophical Transactions.

June, 1829.

ART. XII. *Reports of Cases treated in the Baltimore Alms-House Infirmary.* By THOMAS H. WRIGHT, M. D. Physician to the Institution.

CASE I. *Chronic Laryngitis.*—Margaret M'Carthy, aged forty-two, naturally robust constitution, was admitted, May 10th 1827.

Symptoms.—Respiration sonorous, and somewhat laboured, but not painful; voice a hoarse whisper; no fever; cough occurring in paroxysms somewhat severe, without expectoration; pale countenance; not much emaciation; no particular debility, nor other signs of general bad health. In February preceding, she had been attacked by symptoms of croup, as she reported, and was dangerously ill for many days. She recovered slowly, with the alteration of voice, embarrassed respiration, and cough, above described, which symptoms continued ever since, and had undergone occasional exasperation, by cold, fatigue, and other disturbing causes.

The patient had been but a short time in the infirmary, before an acute attack of her disorder supervened. She had been out of the ward for a few hours in the day, and at night complained of feeling

chilly and unwell; in the course of that night her breathing became difficult and painful, with a feeling of great stricture across the top of the thorax; inspiration was impeded, and soon became extremely laboured and anxious, attended by a loud and peculiarly harsh croaking sound, which was audible in every part of the hospital. A paroxysm of coughing occurred at intervals, and distressed the patient very much; it was abrupt, renewed rapidly for some seconds, and of a sharp thrilling kind, as of air forced with great impulse through a tense, narrow passage. There was no expectoration, except that sometimes after great effort in coughing, a considerable quantity of colourless, ropy fluid would be suddenly thrown off, by an act of strong expiration, amounting nearly to vomiting. The patient's countenance was pale, and betrayed much distress. Pulse small, quick, and soft; temperature of the body rather low.

The treatment of this severe paroxysm, consisted in the exhibition, at intervals, of the camphorated julep, with tinct. opii and æther; liberal demulcent drink, an epispastic to the thorax, and a light, warm cataplasm of flaxseed, chamomile, and spirit of camphor to the front of the neck, with bottles of hot water to the lower extremities. The symptoms of cynanche anginosa gradually passed off, and in forty-eight hours the patient was in her previous state, except some general debility. Paroxysms similar to the one just described were frequently renewed, commonly ensuing to some exposure or change of weather. In the course of three months she suffered not less than six or eight such attacks—usually of thirty-six or forty-eight hours duration—without any sensible impairment in the intervals of her general state of health; the paroxysms always breaking up with a discharge of large masses of uncoloured gelatinous matter. Great efforts were made to alter the state of parts which kept up the liability to those sudden attacks, with their train of terrible symptoms. The patient was put on a guarded mercurial course; small doses of calomel in combination with guaiacum and cicuta; with the employment, as liberally as possible, of tartarized ointment, over the upper region of the chest, and a succession of blisters kept open in front of the trachea; her diet was regulated, and bowels kept soluble. Once or twice her mouth was rendered slightly sore by the calomel, and during the continuance of that impression, the patient thought her breathing was much more free; but one or two severe seizures occurring after what was considered a full trial of mercury, it was withdrawn altogether, and various means afterwards employed. The plan of counter-irritation was frequently renewed, and having sometimes procured great advantage from the steady exhibition of copaiba, in the atonic forms of bronchi-

tis and catarrh, an emulsion of that article was employed in the present case after the mercurial alterative experiment was given up.

While under the balsam course, with counter-irritation externally, the patient had less cough, enjoyed longer immunity from acute attacks, breathed better, and was in many respects more comfortable; but still her voice was rough and stifled, and slight impressions of cold or damp brought on some degree of that harsh, stridulous, croaking kind of inspiration, which became so exalted and predominant in the severer paroxysms. On one occasion, when this woman had been in the yard of the alms-house, after a day of cold rain in August, she was affected at night with the usual symptoms of a suffocative attack. In this instance, the bad symptoms exceeded their common intensity; the usual palliatives, diligently applied, failed to give relief, and the patient expired suddenly, in twelve hours from the incursion of the paroxysm.

Examination eight hours after death.—Along the anterior surface of the trachea, somewhat on its left side, were a number, five or six, round bodies, from the size of a pea to that of a marble, lying loosely. Those bodies were of dark colour, part quite black; from their place and manner of distribution, they appeared to be the external bronchial glands degenerated. They were of soft pulpy consistence, the black bodies of the same colour within as on the outer surface. At the great division of the trachea, directly in the bronchial angle externally, appeared a round body, of dark red colour and considerable magnitude, about the size of an English walnut, the mass was dissected out, and felt firm and heavy. On attempting to cut through the middle of the body, its complete division was prevented by the resistance of a hard substance within, and a partial section only made. The body now presented a three-fold constitution; the external matter, for a quarter of an inch was dark red, then a layer of greater thickness, quite black, while the centre of the body was a hard, white, calcareous substance, supposed to weigh one drachm. The whole mass, like the bodies along the line of the trachea, seemed to be a morbid enlargement and conversion of the small glands usually occupying the external bronchial angle.

The interior of the trachea was very pale, except just before its branching, where there was a florid patch, an inch in extent. The inner surface of the rest of the tube, up to the thyroid space, was not only without colour, but its mucous membrane so thin that it could not be certainly distinguished, and the cartilages seemed without any regular interior covering; nothing of the sort appearing, except a few filaments stretching across from one ring to another; yet there were

no marks of distinct ulcerous waste in any part of the tube. There was no fluid of any kind in the trachea, until opening its primitive branches; these were found filled with the same ropy mucus which the patient had occasionally discharged in former attacks. The mucus found in the bronchial tubes was of brownish colour. The posterior part of the trachea, opposite the thyroid cartilages, was of almost cartilaginous firmness, and more than an eighth of an inch in thickness. The interior capacity of the trachea between the thyroid cartilages was very much contracted, leaving a triangular chink scarcely sufficient for the passage of a straw. The space of the larynx above the thyroid cartilages was also greatly narrowed, by thickening of the lining membrane, and more particularly of the reflection forming the rima, (the borders of which were hard and chord-like,) and the covering of the ventricular portion or appendages of the larynx.

The lungs appeared sound. They were throughout expansible and crepitous, but heavy and dark coloured, showing great venous congestion. The patient died, probably, rather of suffocation from the loaded state of the bronchial tubes and cells, complicated with strong spasmodic irritation of the larynx, than from any acute derangement or lesion. The mucus with which the bronchial passages were all filled, up to the great division, was so viscid that none of it would flow out by gravitation, and only small portions could be extracted mechanically.

Case II. *Chronic Carditis. Hypertrophy with Condensation.*—Anne Lee, twenty-six years of age, near six feet tall, of good proportions, rather pale, but not sensibly emaciated, was admitted June, 1827. She represented herself to have been as well as common for years previously, until April last, when her menses were missed, and from this cause, as she supposed, her health had declined.

Symptoms.—General system. The temperature of the surface natural; skin soft; pule 85, very small, not sensibly irregular or unequal; no fever or rigors; countenance pale; complexion a little sallow; eyes clear. Encephalon. No head-ache or vertigo; senses perfect· mind calm. Gastric system. Tongue clean; slightly lymphatic in the centre; no decided character of irritation; stomach not deranged in sensation; no morbid sensitiveness about the epigastrium; appetite commonly good; bowels regular; dejections scanty. Thorax. No cough; respiration small, but easy in general, the same when lying, sitting, or standing, but quicker after walking or any effort, and checked suddenly, but not painfully, on attempting full inspiration;

no pain in the region of the heart, or the muscles of the chest or arm, and the patient could lie on either side, but preferred the left. Abdomen. Belly rather full, too prominent or rounded at the sides, slightly tense, not generally tender; sensibility greatest in the left hypochondrium, as if from a degree of splenitis, or of morbid tenderness in the left portion of the transverse colon; no defined hardness or volume in the part. This was the only acknowledged seat of soreness or pain about the body, and uneasiness, sometimes amounting to pain, was generally felt here, and frequently referred to by the patient. The region of the liver bore pressure well, which did not betray any unusual evolvement of that viscus. Pelvis. Menstruation suspended; no pain in that seat; urine scanty and high coloured, but voided without pain or irritation.

In this groupe of symptoms there were no explicit signs of predominant embarrassment in any of the great organs or systems; the case resembled very much the common chlorotic character of disorder, so often attendant on catamenious interruption. Yet it was at the moment suspected that there existed serious chronic derangement in some seat of primary importance, and that the foundation of such derangement was independent of the cause assigned by the patient, and had been laid long anterior to the time to which she referred the origin of her complaints. This suspicion was founded in part on the general aspect of the case, but mainly on the remarkable smallness of the pulse, the very limited scale of ordinary respiration, and the sudden check uniformly opposed to every attempt at full inspiration. What was the true nature of the constant embarrassment of the circulation and breathing, was, however, a question of much uncertainty.

Treatment.—The patient was put on a tonic and alterative course, to give new impulse to the suspended or failing functions, and to check the proclivity to hydropic infiltration. Calomel was given in small doses, combined with squill, rhubarb, and pulv. canell. alb., and the patient directed the use of an infusion prepared with a view to excite more efficient action of the bowels and kidneys, but containing a proportion of vegetable bitter,* to prevent depressing or disabling effects, on the digestive organs; the use of the infusion to be regulated, in its dose and repetition, by the correspondence of its effects with the general design of its exhibition. Daily friction on the trunk

* The preparation so highly commended by Mr. Abernethy in one of his earliest publications on the means of correcting chronic errors of the digestive function, viz. gentian, senna, supertartrite of potash, and an aromatic aqueous infusion, used daily to moderately free catharsis.

of the body, chiefly over the hypochondriac and lower pectoral regions, with a mild rubefacient, were also employed.

The patient's mouth was rendered slightly sore by the calomel at the end of a week; the flow of urine had become free, and the œdema of the lower limbs was now scarcely apparent; the patient's spirits and appearance more enlivened. The calomel was withdrawn in a few days after its action became manifest, the bitter cathartic infusion was continued so as to keep up regular and free operation of the bowels. She continued to improve in strength and appearance, though the pulse and breathing betrayed a similar embarrassment as at first, yet from the decline of anasarca, increased vigour of body with rest, and regularity of life, the respiration was less distressing to the patient than formerly. As the catamenia had not returned, after six weeks stay in the infirmary, the tonic gum pill* was directed for the patient. She had now recruited so much as to sit up all day, walking the ward at her pleasure, and engaged in light work, knitting, sewing, &c. Such was the state of the patient at the end of eight weeks from her admission. At this time, after having been out of the hospital for some days, she was attacked in the evening by chill, followed by fever, cough, acute pain in the upper middle region of the thorax, and very confined respiration; symptoms betraying the invasion of pneumonitis. In the fever ensuing to the chill, her skin became hot, head painful, face pale and appearing swelled; pulse very quick, thread-like, and readily interrupted by pressure. The patient was restless and agitated, and could not lie down without insupportable oppression of breathing.

From the depressed expression of the patient's countenance, and the uncommon character of feeble movement in the pulse, general blood-letting was omitted. A full dose of calomel, with antimonial powder, and the compound powder of ipecacuanha, Dover's, was exhibited, with the design to allay constitutional irritation, and induce an efficient secreting function of the mucous passages and skin. To favour the latter object, a dilute solution of tartarized antimony was ordered at intervals in liberal portions of warm barley drink. The night was passed badly. On the next day the patient was very weak, her face much swelled, infiltrated, with some colour, pulse quick, and thready, breathing laboured, intellect dull, inclining to stupor, cough less frequent, no expectoration. A large epispastic was ordered to the chest, calomel, camphor and ammonia in combination, every four hours, wine whey freely for drink. The day passed without sen-

* G. Myrrh., g. fœtid., terebinth. venet., sulph. ferri., ext. gentian.

sible alteration in the state of the patient; early in the night she became incapable of lying, as before, half recumbent; rose up abruptly in bed very frequently, in much agitation, and after a few paroxysms of very distressed breathing, sunk down and expired suddenly.

Dissection.—The head was not examined. Thorax. Immediately under the upper third of the sternum appeared a considerable mass of recent gelatinous, or lympho-gelatinous deposit, of pale yellowish colour; the surface of the mediastinum and pleura, and for some space around, exhibited the appearances of recent inflammation; the serous membranes of the chest, (except the inflammatory patch described,) as well as the pulmonary surfaces, in their common state; the right lung much shorter than natural; the heart, with its envelope, presented very full in front, occupying the middle region of the thorax, rather than the left side, and appeared, (from the volume and seeming fullness of the pericardium,) to be larger than common; the front border or margin of each lung, was tied to the sides of the pericardium by three or four distinct, strong slips or bands, of fibro-ligament, of evidently ancient formation; the bottom of the left lung cohered extensively, by old adhesion, to the diaphragm, and in a partial degree to the pleura costalis; the parenchyma of both lungs was sound, soft, and crepitous; both pulmo-pleural sacs contained a few ounces of water; the heart, enclosed in its sac, being raised up, felt particularly firm and heavy, and retained its cordiform shape, as if its chambers were filled by some solid matter, while its exterior surface was closely embraced by the pericardium. On making a longitudinal section, to divide the pericardium and expose the heart, nothing of the common distinctness of parts could be found. The pericardium not only cohered to the heart, but was consolidated, or identified with its substance. This union was complete and universal up to the roots of the great vessels. The heart was weightier than natural, and fully equal to the medium size of the bullock's heart. The left ventricle was empty, and remarkably circumscribed, not capable, by conjecture, of containing more than half an ounce of fluid. Its thickness was rather more than an inch, its internal surface of natural appearance; the root of the aorta not sensibly hypertrophied; the semilunar valves soft and natural. The left auricle was of natural size, darker coloured than usual, firmer in its wall than common, but retaining a good deal its soft sacciform character; the mitral valve healthy. The right ventricle was smaller than common, less collapsed than in its natural empty state, no coagula in its cavity, its parietes very firm and thick, like the mass around the left ventricle; the root of the pulmonary artery and its valves sound. The right auricle was

uncommonly prominent and rounded, and of particularly purplish-red colour, much darker than the rest of the heart. Its wall was half an inch thick in every part, its cavity did not collapse when cut open, and its whole interior was black and ragged, with short flocculent masses hanging from all the inner surface. The inside of the auricle represented a rough ulcerous cavern smeared and blackened with grumous blood. There were no traces of purulent or sanio-purulent fluid in the cavity, and only a few flakes of dark fibrinous matter. When the auricle was cleaned out, its interior surface still exhibited a perfectly ragged, (for want of a better term,) ulcer-like appearance. The tricuspid valve was found entire, but was undergoing calcareous degeneration. On being handled, its chordæ tendinæ cracked and broke to pieces between the fingers.

Stomach healthy; remarkably small size, not more capacious than an equal extent of the colon. Spleen somewhat enlarged. The intestines and peritoneum natural, except a very blanched and bloodless appearance; some water in the peritoneal cavity, the abdominal aorta preternaturally small. The liver did not occupy more abdominal space than is common, but was twice its natural bulk; and from some cause not apparent, had ascended in the direction of the left thoracic cavity, pressing the diaphragm before it, and occupied fully half the space of that cavity; hence the compressed and shortened appearance of the left lung, before noticed. The liver, though hypertrophied,* bore no particular mark of disease; the gall-bladder was small and contained a thin pale green fluid. The kidneys, uterus and bladder, natural, the latter of very small size. The ovaries on both sides were converted into a mass of tuberculations, imperfectly suppurated. There were some remains of chronic ulceration in the vagina, the clitoris morbidly enlarged, and part of the labiæ internæ demolished by former ulcerations. Both groins exhibited scars from ancient buboes.

Taking the strong traces of former syphilitic ravage into account, there seems ground for suspecting that the thickening and softening of the right auricle, and the singular ulcer-like raggedness within that chamber, were consequent on constitutional contamination of lues. I have occasionally met with reports of soft fungoid vegetations in the chambers of the heart, referred to venereal origin, but I have not in recollection any account of degenerescence in the cavities of the heart, similar to the instance here reported. It is remarkable that

* Tiedemann and Gmelin have remarked, that in diseases of the heart, the liver is enlarged.

the carditis in the present case should have gone to such an extent without having caused fatal disturbance in the function of the organ, and of the general economy; and it is farther surprising, that such a disease should not have been attended in its development by symptoms of suffering and illness, sufficient to enable the patient to refer to the time and the circumstances of its active predominance; she could not, under particular examination on the subject of her general health, in the first instance, be brought to remembrance of any illness for an indefinite period before coming to the Alms-house. It would seem, however, that even carditis may sometimes observe a course of slow chronic consummation, without involving any peculiar or pressing crisis.

The acute inflammation invading part of the serous membranes of the chest, appears to have lighted up a degree of irritation which the morbid state of the heart rendered it unprepared to meet, and incompetent to sustain. The defect, both of capaciousness and power of dilatation in the chambers of the heart, with the want of sufficient contractile energy in the whole organ, were the probable causes of fatal embarrassment in both systems of circulation; and thus the occasion of sudden death.

Case III. *Aortal Aneurism, with Rupture into the Trachea and Œsophagus.*—Henry M'Claskey, admitted December, 1827, age fifty-four, short stature, form muscular and heavy, with marks of great natural strength. The leading symptoms, at the time of admission, were cough, and a constant sense of weight in the chest, increased on exercise, and causing labour of breathing after any considerable effort. The cough was hoarse and dry, without expectoration, not very frequent, not commonly excited or increased by deep breathing, the sense of weight in the chest constant, rather disagreeable than distressing, and not at all impeding lying down or walking about moderately. The patient represented his present symptoms to have come on about three weeks before, previous to which time he was, or believed himself to have been in good health, had been seldom sick, led an active life, and was free of any aptitude to cough, or other disorder.

There was no fever, nor feverous temperature of the skin. Examined for many days together, the pulse betrayed no sensible fluctuation; it was sixty-five to seven; soft without volume, requiring pressure to distinguish it well, and not resisting with any energy of stroke; it was both a weak and sluggish pulse, though the latter is

usually characterised by some force. The general state of the system corresponded with the torpor of the circulation; the man kept his bed, was silent, and seemed indifferent to every thing about him, his usual position supine, countenance dull and drowsy; when asked respecting his state of feeling, complained of annoyance by his cough, and of the sense of weight in his breast, spoke little, rather abruptly, and always in terms implying despondence of getting better.

There were in this case but faint indications for diagnosis,* or prescription. Chronic pulmonary embarrassment was suspected, but of what particular character was uncertain. No leading indication presenting, a palliative course only was prescribed. For many days the patient remained as when admitted. He ate all that was given him, slept great part of every night, and frequently in the day, yet always expressed himself uncomfortable, and denied any improvement in his sensations. Diarrhœa was prevalent in the Infirmary when this man was received, and in a week after his admission he was affected by that disorder, which caused him much inconvenience, and seemed to aggravate his cough, chiefly perhaps by causing him to leave his bed frequently, to go to the privy. One morning, in the fourth week of the man's stay in the Infirmary, while we were making the usual tour of medical duty through the ward, this man came out of the privy closet, (a small apartment at the end of the ward,) and ran toward his bed, coughing very hard. In the next moment, the sound of violent vomiting was heard, which attracted our attention, and caused us to repair instantly to the spot. M'Claskey was lying on the side of his bed, vomiting blood in torrents, and was lifeless in ten seconds.

Examination.—No extravasated blood in the general cavity of the thorax. The right lung extremely dilated, filling the whole right cavity of the chest, of a deep purple hue, and engorged to the utmost possible degree, not from vascular congestion, but complete injection with blood, of all the bronchial passages and cells, to their minutest divisions; no artificial inflation of the lung could possibly have caused a more perfect display of its expansive capacity. The left lung was not at all dilated, and exhibited no unusual colour.

The heart viewed in situ, gave but a very partial representation of the nature of lesion, some appearance of a pouch only presenting just beyond the arch of the aorta. The trachea and œsophagus were divided

* It proved afterwards that the stethoscope, (which I have to acknowledge the error of neglecting to employ in this obscure case,) must have plainly revealed, at least one decided character of lesion in part of the thoracic organs.

above and brought down, the membranous connexions around the thorax and to the spine separated, and the heart and lungs taken out together. Being now inverted, the state of the parts was readily traceable. At the deepest posterior part of the arch of the aorta, an inch and a half below the root of the left subclavian, was an aneurismal sac, the size of an egg, its parietes soft and apparently very thin. This was plainly the source of the hæmorrhage, and to trace its communications, the sac was slit open through its greatest length. The coats of the artery, (within the limits of the sac,) were very thin and tender, and tore rather than cut when laid open; the sac was empty, except a few delicate layers of soft coagulable lymph. Passing the finger into the sac, it encountered three or four hard, rough, pointed bodies, on each side, within the aneurismal cavity, which were the extremities of three broken rings of the trachea; the points were thin and sharp, as if wasted, and had a roughness, hardness, and brittleness, more of bone than cartilage. The communication with the trachea, and the cause of bloody insufflation of the right lung, were thus explained; it remained to ascertain why the fatal hæmorrhage had occurred in the form of a violent and repeated gush by vomiting. When the œsophagus was now detached from the trachea behind down to the borders of the aneurismal sac, it was found to be united by adhesions both with the diseased portion of the trachea and a part of the aneurismal bag; a farther separation of the œsophagus from the trachea, disclosed an oval opening, in the former, large enough to admit the point of a finger, by which the œsophagus communicated with the trachea, just behind where the rings of the latter had given way, which was pretty low on the left side of the trachea. The coats of the œsophagus were very much attenuated over the whole extent of its adhesion to the trachea and sac, and the rent described communicating directly with the current flowing into the trachea after rupture of the rings; the blood seems to have passed freely also, by the route to the stomach; hence its discharge by distinct acts of full vomiting. The stomach contained after death about a pound of coagulated blood.

It has been mentioned that the left lung was not dilated, or changed in colour, &c. The cause of this difference in the two lungs, was explained while removing the parts from the cavity of the chest. The left lung was found to adhere with great firmness throughout its whole anterior, lateral, and posterior surface, to its own pleura, and by that to the serous membrane of the ribs. The lung was enlarged very much, firm and heavy, and in its whole substance hepatised to so great a degree, that every trace of bronchial tubes and cells was wholly ob-

literated up to the point where the left bronchus penetrates the lung by its primary branches. From this point there was no channel by which air could enter the lung, and for that cause, the extravasated blood was totally excluded.

This lung had evidently been long out of the service of breathing, and as its cohesion and condensation was clearly the work of inflammation, and that probably of no indolent character, it is inexplicable how the unfortunate subject of the case could have been so unconscious as he appeared of any former morbid state of his lungs, and so fully impressed with the belief that his health was perfect till within four weeks of his coming to the Alms-house. The case in this respect adds another to the numberless admonitions, derived from hospital practice especially, how little confidence can be placed in the account which patients give of their general state of health, even where there is no reason to suppose the smallest intention to deceive. It was to the state of the left lung, as represented, that allusion was made, when it was remarked that the stethoscope might have clearly indicated one important feature of diagnosis, in the investigation of the seat, &c. of lesion, about the thoracic textures. The respiratory murmur, indeed every sound which respiration gives by mediate auscultation, was of course wholly extinct over the entire front, side, and back surface of the chest, corresponding to the outline and body of the left lung.

Case IV. *Gangrena Necrosis, with peculiar Arterial Degenerescence.*—Margaret Cash, aged fifty-six, admitted October 20th, 1827. This patient came into the house with diarrhœa of an aggravated character; frequent painful dejections of the muco-gypseous kind, frothy, ash-coloured and glutinous; severe enteralgia, soreness in the right hypochondrium. The general symptoms were indicative of much constitutional disorder, but did not betray any urgent danger. There was no head-ache, no cough or pain in the breast, breathing natural, temperature of the surface moderate, tongue white, no particular thirst, stomach quiet with indifference to food. The pulse was about ninety, small, sharp, and irritable; in the left arm the pulse was barely perceptible to the most careful examination, and so faultering as to be extinguished by the least pressure; temperature of the left arm and hand sensibly less than in the right; no other difference in the two arms, except that the power of voluntary contraction was less in the left hand than the right. The patient was still, spoke seldom, seemed listless and unconcerned, yet without tendency to stu-

por, or any manifest fault of intellect. The predominant signs were intestinal and hepatic irritation, with augmented excitability, and deficient tone of action in the vascular system.

To calm irritation of the bowels, restrain the wasting discharges, and improve the excretions, a mild aperient, ol. ricini, gum arabic, and sugar in emulsion were exhibited, to which was added a few drops of laudanum; and succeeding the operation of the emulsion, small doses of calomel were directed at intervals of six hours, combined with a few grains of chalk, pulverized gum arabic, half a grain of ipecacuanha, and one-eighth of a grain of opium. The urgency of diarrhœa, and its debilitating consequences, requiring early restraint, an occasional dose of chalk julep was afterwards added. The patient was kept strictly on our hospital regimen for diarrhœa—for breakfast and supper, equal parts of milk and water, boiled lightly, with a portion of toasted bread or biscuit—for dinner, rice jelly sweetened—common drink, mucilage of rice or barley. By these measures steadily pursued for some days, the number of movements was reduced to four and five in twenty-four hours, less than half the number commonly occurring at and before the period of admission.

The patient's general state was not amended in correspondence to the lessening of diarrhœa, pain, &c. She continued languid and dull, with rather increasing signs of lowness; her pulse in the right arm, still small, sharp, feeble, and more frequent than at first; in the left arm there was now no pulse; the left forearm and hand cool, even cold, to the touch, while the rest of the body was warmer than natural; the patient always drowsy, yet sensible when roused. Some irritability of the bowels remaining, motions too frequent, and the evacuations brown yellow colour and soapy consistence, the hydr. cum cret. et op. &c. was continued, and the infusion of cort. ulm. rubri ordered, the latter agent having been found in very many of our cases of chronic diarrhœa, to exert a salutary influence. The diet was made to correspond with the design of support, as far as the state of the symptoms and the almost total indifference of the patient to food would permit.

Ever since the patient's admission into the infirmary, she had complained of pain in the inner side of the left arm, a little below the insertion of the tendon of the teres major. Nothing appeared at the place indicated, to explain the cause of pain there; the part was sore to the touch, but neither swelled nor inflamed; the soreness extended an inch or two up and down the arm, in the track of the brachial artery. At the end of a week from her entering the ward, the pain of the arm, and soreness to handling, had almost entirely

disappeared, but the patient was then sensible of total loss both of power of movement and sensation in the left hand. That hand was quite cold, and on the tenth day a faint bluish tinge was discovered over all the fingers, the colour permanent, and not varying by pressure. The discoloration of the fingers became deeper every day, spread slowly, first up the back of the hand, then through the palm, and by the sixth day from its appearance, had reached the carpal articulation all round. The fingers, up to the metacarpal junction, were now evidently lifeless; they were cold, black, and unpliant, yet not at all sphacelated, nor showing any vesiculation, or other marks of putrescent decay; nothing like separation of parts was manifested; the blackness was lost indefinitely, by a fainter shade in the adjacent skin. The forearm next showed the same character of lividness, first occurring to the fingers; but on the arm the expression was different; here it appeared in the form of purpura, in blotches at distinct points on the arm, chiefly on the back of the arm, from the wrist to the small head of the radius. The blotches were large, irregular in form, and in a few hours after their appearance some of them became slightly vesicular or bullous, the cuticle being somewhat raised by sero-sanious extravasation. During this change in the condition of the arm, there were no marks of that low, topical, inflammatory action, which accompanies gangrena sphacelus; the arm neither swelled nor became hot. The death of the limb seemed to be taking place in a manner purely passive.

As soon as the livid tinge was perceived on the fingers of the left hand, the patient, notwithstanding the continuance of general feverous irritation, was put on a decidedly sustaining course; the quinine was exhibited freely, with the cordial mixture, (sub. carb. ammoniæ, aq. menth. et tinct. cardamom. so much commended by Mr. Cooper;) opium and camphor were given at night, the first liberally; the hand and arm were kept enveloped in fomentations of bark and chamomile, charged with spirit of camphor and tincture of myrrh. The supporting plan, prosecuted regularly for many days, and varied according to circumstances, made no satisfactory impression. The powers of life gradually declined, stupor supervened, and the patient expired on the twenty-first day after entering the hospital. The discoloration of the left arm never spread above the elbow-joint, and nothing of gangrene, nor any petechial or purpurous spots appeared on any other part of the body; there was no gangrenous fetor about the arm. For more than a week before the death of the patient, the diarrhœa was inconsiderable.

Examination.—For the purpose of tracing better the state of the

arteries in the left arm, a pipe was introduced into the left subclavian, and the fine injection thrown in as fully as possible; the arm was then removed at the shoulder-joint. The artery and vein, (cephalica magna,) had a very unusual relation to each other. The former was filled with the injection as far as the bend of the arm; its course was very serpentine, and two inches below the root of the superior profunda, made a sudden curve, so as to describe a semicircle an inch in diameter. This bend was apparently referrible to the state of the vein at that point. From the axilla downwards, the great vein was enlarged, and filled with semi-solid black blood; in two or three places above the doubling in the artery, the vein was dilated into distinct circumscribed tumours of moderate size, while at the place of sudden curvature in the artery, there was one of those tumours the size of a musket ball, and solid as if the contained blood was firmly coagulated. Round this great varix the artery turned close, to take afterwards its ordinary course to the bend of the arm. It was to this spot the patient pointed as the seat of pain in the arm. The external cellular coat of the artery exhibited a high red colour throughout its whole course, from the axilla to the bend of the arm; just above the turn of the artery round the great varix, its thickness was increased for the space of an inch, to more than three times its circumference in any other part. This enlarged portion of the artery was firm, and consisted not in aneurismal dilatation, but in general thickening of its coats all round, to one-third of an inch, by which its channel was very much diminished. The profunda superior was very much enlarged in its trunk, and involved at its branching in a plexus of veins, showing a number of varicose pouches filled with black blood.

The roots of the radial, ulnar, and interossea arteries, were full, round, and hard, apparently distended by injection; but it was found that the injection had not penetrated below the bend of the arm, and was stopped there abruptly by a plug of solid coagulum, which extended continuously through every trunk and considerable branch of the forearm.* There was no earthy deposit in the coats of the humeral or proper brachial arteries.

The right arm was dissected without previous injection; the veins were large, but natural in appearance; no varices or other irregu-

* The humeral artery was dissected out of the arm, and with it an inch or two of the branches in the forearm containing the coagula described; the concreted blood could not be pressed out, and now after twelve months maceration in dilute alcohol, the coagulum is perfect as ever, showing a deep purple hue of the branches as far as it extends.

larity. The humeral artery, with an exception to be noticed directly, was of ordinary appearance, and regular in its course. At two fingers breadth below the root of the profunda, the artery was suddenly enlarged into a bulbous body, somewhat oval in shape, and about the size of a large almond; its walls very thick and spongy, with portions of loose flaky matter in their substance; the centre of the tumour contained a little pus, and immediately around the pus was a substance resembling the matter of crude tubercles. The enlargement of the artery then was the effect of steatomatous degeneration in its coats, and the tumour which had been found in the left humeral artery was the same morbid conversion, less advanced. The canal of the right artery was not quite obliterated at the point of disease; it was pervious there, but the passage very contracted, and not through the centre of the tumour, but on the side next the bone, and very near the surface. Although the continuity of the tube was preserved, it is probable that little if any blood passed through the diseased part of the artery; the passage through the tumour was very confined, and the trunk of the artery, directly above and below the enlargement, had a shrunk and wasted appearance. The profunda was very full in its trunk, and divided near its root into five principal branches, three of the largest taking a course down the arm. It is probable that the forearm depended mainly, if not altogether, on the supply by the branches of the profunda, through the anastomotics; the state of the latter branches could not be satisfactorily ascertained, as the arm had not been injected. The cellular coat of the right humeral artery had nothing of that strong red tinge, which was very obvious over the whole trunk of the artery in the left arm.

The heart was much enlarged and flaccid; the right auricle uncommonly capacious; the descending and ascending cavas dilated in a very remarkable degree, before entering the auricle. The right ventricle was dilated, and its wall thin; the root of the pulmonic artery expanded in a pouch-like form, its coats attenuated, and the central points of its semilunar valves chalky. The left auricle as usual. The left ventricle large, flaccid, and thin. The coronary arteries hard and friable. The root of the aorta much dilated; at the arch swelled into a bag-like expansion, twice as capacious as the healthy form of the vessel at that point; its semilunar valves full of concretions. The enlargement of the aorta, more regular in figure, continued down the trunk through the chest and abdomen, and the whole track of the vessel, from the ventricle to the bifurcation, was studded with calcareous formations in large patches, smooth and firm, and as usual, lying between the coats. At the arch, the patches of cal-

careous matter were particularly large, two or three of the plates equal in surface to a twenty-five cent piece, and exceeding an inch in length. The carotids and subclavians did not show any degeneration of their coats; the veins of the neck were uncommonly large and distended with black blood. The lungs were sound, but unusually dark and heavy, from engorgement of the pulmonary veins. In the abdominal cavity there was no manifest lesion of any of the structures; the mucous coat of the small intestines showed some patches of slight phlogosis. The encephalon was not examined.

The appearance of the inferior extremities were natural.

It is a difficulty I am unable to solve, why there should have been distinct pulsation at the wrist in the right arm, and none in the left, and yet the degeneration in the coats of the right artery, the only obvious positive disease in either, more advanced, and more obstructing direct transmission of blood, than in the left. It is true, perhaps, that the main cause of slow mortification in the left arm, was more the consequence of diminished and constantly failing energy of life in the whole member, than of primary or mere mechanical interruption to supply of blood; but still why or how the occasion of this limited and local privation of living power?

Case V. *Pneumo-hepatic Abscess.*—Daniel Crocker, aged fifty-two, was admitted August 1st, 1828, in a state of universal involuntary tremor, apparently of that temulent kind, familiarly called in the house by the term miserables or horrors; he was known to be generally intemperate, but denied that he had been lately intoxicated; reported himself long subject to occasional ague. This person was middle size; not emaciated; muscles soft; countenance wan; complexion deep sallow hue; same ochrey colour over the whole body; slight cough; breathing short, without pain; no head-ache; skin cool; pulse small; no fever; tongue clean; appetite good; belly prominent; right and left hypochondrium tender, without sensible organic evolvement; bowels slow; urine scanty; no evident infiltrations.

Diagnosis.—Chronic inflammatory congestion of the liver and spleen, with symptomatic ague; anetus erraticus, or complicatus, of Good.

Ordered, calomel, pulv. Doveri, āā gr. x. at night; in the morning as purgative, ol. ricini et syrup rhœi. Medicine procured sleep, and the oil, &c. purged well; tremor abated; belly less tight, and patient felt better, though weak. Ordered, calomel ⅓ gr., rhubarb and Dover's powder, āā gr. ii. ter in die; friction with tartar emetic ointment on the right hypochondrium; diet milk and bread and ri

milk. The medicines and regimen were continued four days, in which time the tremulous movements passed off, no fever, the tongue clean, appetite good, patient cheerful, and felt better; a crop of small pustules came out on the side; no mercurial charge in the breath; on the fifth day, ague, (the first since coming into the ward,) occurred, held long, shook the patient very much, followed by moderate febrile movement. The paroxysm left head-ache and nausea. Ordered, an emeto-cathartic—jalap and ipecacuanha. Medicine operated upwards and downwards freely; patient complained much of its debilitating influence; some soreness still in the left hypochondrium; very little in the right except from the tartar pustulations on the surface. Ordered, the calomel, rhubarb, &c. as before, with addition of half a grain of sulphate of quinine to each dose; the diet was strengthened, no fever contraïndicating, to light animal broth and bread for dinner. For a weak there was no recurrence of ague; the patient's appearance improved and strength recruited; pain of the side was scarcely recognised on pressure; breathing natural, and the short cough existing on admission entirely lost; there was no display of mercurial action in the mouth. The man left his bed at this time, and engaged in light employment about the infirmary.

In a few days after, the fourth or fifth from his getting up, Crocker was again in his bed, looking very ill. His former tremor had returned violently; he complained of being both cold and hot for the last twelve hours; had pain of his right side, cough, difficult breathing, and head-ache His face was flushed, (the first time it had shown colour;) tongue white; pulse small, quick, and sharp; patient attributed his illness to cold taken from general washing of the infirmary floor, the day preceding. Ordered, venesection immediately, quantity to be determined by its influence on the pulse, flush of countenance, pain, and difficulty of breathing, &c.; after bleeding, solution of sulph. magnes. with minute charge of tart. antim. at intervals, until purging and diaphoresis; an epispastic* over the right hepato-pectoral region. Next day the patient better; breathing easy; pain of the side inconsiderable; pulse soft; general diaphoresis. The solution of salts and tartar had acted freely upon the bowels; the blood drawn, (about fourteen ounces,) showed firm coagulum, inverted border, and a coat of fibrin. Diarrhœa succeeded to the operation of the salts; the motions frequent and griping; discharges thin and yellow. Ordered, chalk in gum water, with a few drops of laudanum; patient's diet adapted to the state of his bowels. Though somewhat controlled

* Perhaps better omitted.

by the treatment, the diarrhœa continued troublesome for three days, and broke the patient down a good deal; it then ceased, and left him free of other sensible disorder than weakness. There was no fever during the disorder of the bowels, and none ensued when the looseness was checked; the patient was quiet, looked pale and low, but was without pain, and complained only of feebleness. Medicine was now withheld, and it was attempted to support him by suitable alimentary measures.

This man's state was inquired into every day; he did not fall off, and gained but little. There was no fever and no pain; the bowels were too much disposed to action, and resort became necessary to chalk, ipecacuanha, and opium, as a night dose; this procured opportunity for sleep, and he seemed to improve. At this time, the seventh day from the acute attack of fever, pain, &c. as just described, the patient asked for a bandage for his body; on inquiring his reason for the request, he said to support his back, which felt so weak on his rising that he was unable to sit up. To particular questioning whether his back was painful, or swelled, or sore, at any point, he answered in the negative; nothing was the matter with the back, except weakness of the loins. Two days after, while we were going through the ward, Crocker rose up as we approached his bed, and the effort was followed by a sound resembling a sudden and forcible discharge of fluid from the bowels, which was at first supposed the occasion of the sound, but his shirt immediately showed a deep red tinge, almost to his shoulders, and on being held up by the nurse of the ward, his bed was inundated by a sanio-purulent matter, which still flowed in a stream, and with great force, from a ragged orifice in the middle of the back. The quantity discharged in a few seconds was not less than three pounds, colour brownish-red, matter thin, and without odour. The outlet of matter was about an inch from the spine, on the right side, and between the heads of the last and next false ribs; there was no inflammation of the integuments around the opening in the back. It was plain that the matter came from a great abscess of the liver, and mentioning my suspicion that the right lung was involved, I caused the patient to cough. At every effort, air rushed through the opening with sensible force, and loud crepitation. The part was dressed* with bread poultice; panada, with a little spirit, was ordered, and an anodyne, the bark infusion with aromatics, and the dilute

* I regret that the judicious plan, practised by Mr. Abernethy, of bracing the trunk moderately by a flannel roller, in cases of newly open hepatic abscess, did not come into my thoughts in the present instance.

nitrous acid, to be commenced next day, should there be no fever; diet light, but liberal and nourishing.

The attending students asked with much interest, if this man could get well, under so great lesion of important parts. The answer was, that he might recover if fever or irritation did not set in; an issue, to depend on the condition of those parts of the liver and lung, not directly involved in the abscess, and on the indifference which the constitution might manifest, to the state of the parts affected; the latter turning mainly perhaps on the original soundness of the habit, and its inaptitude to participate in the consequences of local irritation. The patient remained wholly free of fever after breaking of the abscess; his appetite increased, bowels recovered steadiness, and the tone of the general system improved daily. The discharge from the opening in the back diminished constantly, continued free of fetor, and in a short time consisted entirely of a thin serosity; and even that ceased altogether in sixteen days from the rupture of the abscess, the orifice closing in firmly. In short, this man recovered perfectly in a very brief interval, and without a single bad symptom. The bark and acid were continued throughout his convalescence.

Crocker was dismissed the hospital, reported for light work, about the middle of October. In the second week of November he entered the Infirmary again very ill, reported himself to have felt unwell, with chills and feverishness, three or four days before applying for readmission. His symptoms on entering the ward now, were cough, pain of the breast, and difficult breathing, all increased on lying down. He had fever, quick sharp pulse, hot skin, and flushed face; belly rather sore generally, particularly tender in the right hypochondrium, especially in front along the cartilaginous border. The total signs indicated a threat of renewed hepatic abscess, apparently in the anterior portion of the liver. Ordered venesection immediately, a saline cathartic, to be followed by calomel, tart. of antimony, and nit. potass, in doses designed to control excitement, without directly affecting the stomach or bowels, the diet exclusively bread, with milk and water.

For three days succeeding the patient's readmission into the ward, he experienced no relief from the bad symptoms; the signs of illness rather increased; cough was more urgent, pain of the side greater, and breathing more restricted. The fever continued without sensible remission, face constantly flushed, skin dry and hot, strength reducing. On the fourth day, symptoms as before; fever, cough, pain of the breast and side, embarrassed breathing, debility, anxiety of countenance, and restlessness. This day the seat of pain presented the fol-

lowing signs:—belly rather tight, right hypochondrium full and sore, a space in the epigastrium, just below and a little to the right of the end of the sternum, more tender than any other part, more full and prominent also than the adjacent region, and showing an evident blush of colour, two or three inches in diameter, not apparent any where else on the abdomen. The colour faded, and returned, on making or removing pressure, and the part had some degree of the thickened and glistening appearance characteristic of erythematous inflammation of the skin, over parts about falling into suppuration. It was now plain that the left lobe of the liver was threatened with abscess. Ordered a brisk purgative, the bowels being slow, leeches to the epigastrium; in the evening, pediluvium, five grains calomel, with ten of Dover's powder, at bed time; the calomel, nitre and antimony, to be resumed next morning. I was prevented seeing this patient again for forty-eight hours, and then had the satisfaction to find him much better; his fever was lessened, pulse soft, countenance calm and cheerful; pain of the side greatly relieved. The space in the epigastrium, which had been the seat of predominant soreness, had lost its extreme sensibility, the diffused redness, swelling, and other signs of active erythemoid inflammation of the cellular membrane and skin, had disappeared. The intelligent student with whom instructions had been left two days before, for treatment of the case in its then threatening aspect, not being able to get leeches to act efficiently, very judiciously substituted cups, and with these took blood as freely as possible from the principal seat of sensibility. The effect of this manner of depletion was very decided; it had a relieving and soothing influence, not only on the part, but over the whole system, inducing that peculiar relaxing impression and control, both over the pain and the constitutional feverous irritation, which cupping, and also leeching, often produce, in a manner and to a degree, far greater than can be referred merely to the amount of blood thus abstracted. The patient continued to improve, soon recovered entirely, has remained well since, (he is still on the establishment,) and is probably in sounder health now than for years before.

Case VI. *Cynanche Laryngea.*—Samuel Morgan, aged forty-three, tall, spare person, florid countenance, light eyes and hair, admitted January 15th, 1829, suffering under the chronic consequences of what he termed a bad cold, contracted some weeks before. He was very hoarse, almost without distinct voice, short dry cough, not frequent, no pain in any part of the breast, no difficulty either in common breathing, or on making full inspiration. There was no fever in the

general, though the patient before coming to the Alms-house, had laboured under an irregular intermittent, which still occasionally recurred. The pulse commonly small, without frequency, and soft, tongue clean, appetite moderate, bowels regular, evacuations of ordinary character, no evidences of gastric derangement. The main features of the case, in short, were made up of the peculiar hoarseness, dry cough, and considerable general debility; tracheitis, now chronic, with some bronchial concern, seemed the primary and still predominant affection, to which all the other symptoms, the general debility, and probably the intermittent also, held a dependent relation.

The object of treatment in this case, was gradually to divert, or break up, chronic inflammatory irritation of the bronchial mucous tissues. For that purpose various alterative means were employed, generally calomel in small doses, combined with Dover's powder, occasionally with hyosciamus and cicuta. The sarsaparilla ptisan was also used, and an emulsion of gum ammoniac, syrup of squills, and seneca infusion, exhibited as an expectorant. Local treatment was instituted concurring with the general design; stimulant embrocation was made on the throat, and counter-irritation maintained over the top of the chest, by a compound of the tartar ointment with hydriodate of potash. Under the treatment the man improved regularly though slowly; after some weeks he had recovered his voice, lost his cough and intermittent, and regained in considerable part his flesh and strength. At his own request, he was reported for work, in the second week of February.

On the twenty-fourth of the same month, twelve days after being reported for work, I found Morgan again in the hospital. He was now acutely ill; his face flushed, of a purplish hue, countenance betraying great distress, breathing slow and difficult, often causing a struggle for breath, in which he would raise himself on the bed, throw his head back as far as possible, and bring into forcible action every muscle concerned in opening the chest for admission of air. Just before and after one of those severe struggles for inspiration, he made violent efforts to throw off masses of ropy mucus which seemed to fill the posterior fauces, and choke the passage of the larynx. The entrance and expulsion, particularly the former, of air through the larynx, was attended by a loud sound, of that peculiar rough, ringing character, sometimes called metallic, so eminently characteristic of extreme spasmodic or inflammatory narrowing of the apertures of the glottis and larynx. The acts of swallowing was somewhat hindered and painful, though far less embarrassed than the respiration. The external aspect of the throat, not less than other symptoms,

showed the character, and in some degree the extent, of the affection which had brought the unfortunate patient into so much distress and danger. The body of the larynx in front, with the corresponding portion of œsophagus behind, were swelled out into a globular form of much more volume than the natural state of the parts, the surface of the tumour, and the whole front of the neck, having the same dark red hue as the face, and the enlargement possessing great hardness and sensibility to the touch. The pulse was small, quick and weak, having neither tension nor firmness. The report furnished by the resident students was, that the man had been brought into the ward the night preceding, with the symptoms just described, but of less intensity; that he was then chilly and depressed, and seemed incompetent to bear active treatment by direct depletion, but had been freely vomited, and had taken a mercurial cathartic.

The case in all its circumstances had become of pre-eminent urgency, and admonished of his peril by his sensations, the poor man was constantly declaring that he must die if not relieved in a few minutes. The pressure and the source of danger in the case, were sufficiently obvious, and yet the choice of expedients by which to turn it aside, was not without difficulties. Here, perhaps, was a fair occasion for the exercise of that laudable rule of professional conduct, which measures its boldness by the magnitude of its object, and pursues an indication of primary importance or positive necessity, by the surest means in the shortest time. The embarrassment of respiration was rapidly deranging the functions of life, and leading to serious failure of the powers of the whole system. A more free supply of air was the plain demand of the case, and it was but to look at the patient's struggles for breath, to have the expedient of tracheotomy suggest itself for adoption. It was determined first to put in practice a different plan. The smallest size cupping-glasses* were directed to be instantly applied, free incisions being previously made over the surface of tumefaction, above and around the larynx. Aware that the cups might add temporary increase to the difficulty of breathing, they were applied singly, and in as quick succession as possible, leaving in each instance the front of the larynx free and the cups chiefly on the sides. The patient's breathing was a good deal hindered by the first cup; he bore the others better, and after the operation was concluded, we had the satisfaction to hear him acknowledge his feelings

* From the state of cold at the time, our leeches would not have acted; and in a case like the present, or any one of peculiar local urgency, I would give decided preference to the cups.

sensibly more comfortable; he breathed more deeply, and with less sound, and also swallowed with more facility. A light dressing was put on the neck for the present, and a draught directed for the patient at short intervals, composed of infusion of seneca, tartrite of antimony, in small portion, oxymel of squills, and camphorated tincture of opium. It was farther directed that the patient be made to inhale frequently and freely, the vapour of hot water, in which chamomile and serpentaria were infused. If the symptoms continued unmitigated after some hours, an active vesicatory to be applied to the throat, and a liberal dose of calomel and Dover's powder to be given at night.

The patient, though much less distressed after the cupping, continued in a low state for some hours, breathing hard, and, for the most part, with very unpleasant constraint. He expressed himself always greatly comforted by inhaling the warm vapour, and asked for it frequently; but a circumstance occurred which accomplished more for his relief than all other means directed to that object. The incisions made for the cups continued to ooze blood freely after the glasses were taken off. When the vesicatory was applied, the flow of blood was much increased, distilling off so freely as to present the appearance of a small hæmorrhage, staining a great many cloths applied to absorb it, and causing alarm to the patient and nurse. This continued drain from the seat of inflammatory congestion, proved a critical diversion in favour of the patient; I found Morgan next day breathing and swallowing with comparative ease, but extremely debilitated. He continued very feeble for some days, but under light cordial nourishment, and the use of quinine and the mineral acid, directed as soon as seemed safe on decline of the local affection, he recovered steadily and completely.

There is but one remark I would append to this report. I am not sure, the happy result of the case to the contrary notwithstanding, that the omission of *the most certain mean* of averting instant and imminent danger, ought not to be regarded as of questionable justification. I make the above acknowledgment, that none seeing the report of the case, and to whom a similar difficulty might occur for the first time, may be influenced to make an inconsiderate preference, or place undue reliance on a mean which has once succeeded in a case almost desperate. It is seldom safe, on questions of great practical importance, to depart from the concurrent instruction and example of our best authorities.

Baltimore, May, 1829.

ART. XIII. *Cases of Cynanche Trachealis.* By SAMUEL JACKSON, M. D. Assistant to the Professor of the Institutes and Practice of Medicine and Clinical Practice in the University of Pennsylvania.

ON the 7th of February, 1829, I was requested to visit, in consultation, E. M. a female child four years of age. She had enjoyed good health, was well nourished, and possessed full embonpoint.

A week previous this child had been attacked, I was informed by Dr. M. who had attended it, with catarrh and inflammation of the tonsils. Emetics and purgatives had been administered; they had operated favourably; and an apparent amendment had ensued. On the 5th the respiration became stridulous and laboured—venesection ad deliquium was practised with the warm bath; which again produced an abatement of the symptoms. On the morning of the 7th, when I first saw the case, the respiration had again become exceedingly laboured, accompanied with the peculiar sound of croup, stridulous, dry, or unattended with any mucous rattle; cough dry. Examination of the throat showed the tonsils enlarged, a small ulcer on each, the posterior fauces red, but no appearance of membranous exudation, as is often seen in cases of croup commencing in cynanche tonsillaris.

The treatment directed was sixty leeches to the throat, and warm bath—with three grains of calomel every half hour—after the leeches, a blister to the throat. No improvement was manifested. In the evening twenty drops of hive syrup every hour added to the former treatment, and calomel reduced to one grain every hour. At the same time muriatic acid was applied to the fauces by means of a brush, as recommended by Bretonneau, in the belief, that, although no exudation was discernible in the fauces, it existed in the larynx, and blocked up the glottis, into which the air was introduced with great difficulty.

8*th.*—Some improvement—mucous secretion is established in fauces and trachea, the respiration is easier and less stridulous. Mucous ronchus or rattle extends throughout both lungs; thorax resonant; pulse frequent; cheeks flushed: blister directed to each side of the thorax—calomel continued, with hive syrup—the secretion of viscid mucus in fauces was copious during the day, and was removed by swabbing—bowels opened several times during the day—discharges dark green—pediluvium at night, with poultices to legs. During the day was more animated and lively.

9*th.*—Became much worse in the night: in exploring the chest, the

mucous ronchus or rattle, that existed the previous day, had disappeared, and no respiratory murmur was distinguishable, yet the chest was resonant on percussion—respiration exceedingly laboured, and requiring strong muscular exertion—continued to grow worse, and expired suffocated towards noon.

I am indebted to Dr. Horner for the following account of the post mortem examination.

"*Autopsy, February 9th, twenty-four hours after death.*—Present Dr. Jackson; weather cold, and no visible putrefaction. On opening the thorax, the lungs did not collapse, though there was no unnatural adhesion. Interlobular emphysema existed throughout the lungs, which was manifested by bubbles of air collected on their surface, in clusters, and in strings or chaplets following the division of its lobuli. One of these strings traversed completely the circumference next to the ribs, of the left inferior lobe. There was also a considerable emphysema around the root of both lungs. Throughout the inferior lobe of each lung there was a high sanguineous congestion, such as exists in the acute stage of peripneumony, and which gave a solidity approaching to the sanguineous hepatization. This congestion was of a greater intensity at and about the root of the lungs. The remaining lobes were of a light spongy texture, and, except for their emphysematous state, seemed sufficiently fit to carry on respiration.

The emphysema had passed into the anterior and superior mediastinum behind the sternum, and thence below the fascia profunda cervicis, into the root of the neck, up the trachea to the larynx.

Having taken out all the respiratory organs together, and laid open the trachea and bronchia, there was found a perfect and entire lining of coagulating lymph, extending from the superior margin of the glottis, through the larynx, trachea, and bronchia, into the lungs. This membrane became thicker and thicker in its progress downwards; and could be traced satisfactorily into the secondary branches of the bronchia. It adhered with tenacity to the larynx, and upper half of the trachea; but not so much so as to prevent its being pulled off in a state perfectly distinct. In the lower part of the trachea, and in the bronchia, the membrane was so loose that it separated with the greatest facility, forming perfect tubuli.

The mucous membrane of the larynx, trachea, and bronchia, beneath this lining, was highly injected with blood and inflamed, presenting an appearance, rather rougher than common. In the bronchia it was of a scarlet colour, which increased in intensity the further the bronchia penetrated into the lungs, until the ramifications became so small, as to prevent their being satisfactorily traced. The

augmentation of colour was very abrupt, beyond the terminations of the lining membrane of lymph. The ramifications of the bronchia contained a sero-purulent fluid mixed with air."

This case, in its commencement, according to the statement of Dr. M. who had charge of it in the first instance, exhibited no symptoms of croup or laryngitis; but was regarded by him as a case of cynanche tonsillaris and simple catarrh. When I saw it, for the first time, the characters of croup were well-defined, and had shown themselves during the preceding night. This was the eighth day of the disease. At this time no appearance of exudation was apparent on the fauces.

From the autopsy, it is apparent, that the exudation forming the adventitious membrane, commenced in the bronchial ramifications, and ascended to the trachea; for the membrane was, in this portion, firm, of a certain thickness, perfectly tubular, and had nearly been detached from the mucous membrane. In the superior portion of the trachea and larynx it was of less thickness; was not as readily detached, and was not uniformly spread over the surface. This difference in the state of the membrane is an indication of its earlier formation in the bronchiæ than in the trachea and larynx. This corresponds also with the history of the case, as the symptoms of croup were not manifested until late in the disease.

The emphysematous condition of the lungs was most probably caused by the laboured and difficult efforts of respiration, together with the obstacles opposed by the false membrane of the ærial tubes to the passage of the air. It was this state of the lungs, that rendered the chest resonant on percussion. The operation of bronchotomy, it is obvious, would have been of no utility in this case; the real impediment to the respiratory function existing in the lower portion of the trachea and the bronchiæ.

The counter-irritation of the fauces, by muriatic acid, as proposed by Bretonneau, or by nitrate of silver, by M'Intosh, in the view of exciting a new secretion, and thus detaching the membrane from the glottis, could promise no advantage, and proved on trial of no avail.

Case II. An infant, aged twenty-six months, the younger sister to the subject of the preceding case, of good constitution, and who had enjoyed excellent health, was feverish on the 8th of February, the day previous to her sister's death. On examination, the tonsils were found to be inflamed, with slight ulcers on them, the respiration was

quick and wheezing. It was put into a warm bath; and two grains of calomel given every hour.

9*th.*—Respiration more difficult, and the croupy sound more decided; feverish. Thirty leeches applied to the throat, sinapisms to legs, and calomel continued. 4, P. M. Respiration easy; ℥ij. castor oil. 7, P. M. Improved; bowels freely moved; skin moist; pulse less irritated and frequent.

10*th.*—Symptoms aggravated during the night; fever increased, and respiration more croupy; very restless. The examination made this morning of the body of the sister having shown the lungs to be extensively affected, forty leeches were applied to the thorax; antimon. tart. gr. iv. aqua fluvial, ℥ij.; ʒss. administered every half hour. 4, P. M. Symptoms very much abated; emetic had operated freely; croupy sound had very much diminished in ordinary respiration, existed in coughing. 7, P. M. Asleep; pulse feeble; respiration clear and natural in both lungs as determined by the stethoscope. Omit treatment.

11*th.*—Respiration nearly natural; voice hoarse and imperfect in crying and coughing, no fever; copious secretion of viscid mucus from fauces has commenced. Sago water for nutriment.

12*th.*—Improving; has appetite; no fever; respiration natural, though the voice continues affected. The voice did not recover perfectly for ten days after the disappearance of the disease.

This case presented the commencement of the same train of symptoms that had conducted the preceding case to a fatal termination. The warm bath, purging, and leeches to the throat, had brought no amelioration to the condition of the patient: the symptoms of croup were unabated. They had failed, in conjunction with emetics and blisters, and the liberal exhibition of calomel, to rescue the sister from the grave. Instructed by the autopsy that had just been made of the body of the sister, the treatment was directed to the prompt reduction of inflammation of the bronchial mucous membrane, and of the lungs. A large number of leeches were applied to the thorax, and to the fossa above the sternum. An immediate amelioration ensued, and the ground, thus won, was maintained by powerful revulsion kept up on the gastric mucous tissue, by the free employment of the tartarized antimony.

In this case we have another instance, in addition to the thousands furnished already by the practice of this country, that the remedies and the treatment of common inflammation are the best adapted to the cure of croup. What utility is there, then, in the designation of

diptheritic, as employed by Bretonneau: of what service is the assumption of specific inflammations, in the pathology of diseases, when the means for the removal of common inflammation, are the most successful and the most appropriate for their treatment? It does not furnish a single fact available in the management of the disease; it does not present any positive idea as to the condition of organ or structure in which consists the disease; or determine a single principle as a guide to the practitioner. It is the persistence in this system, that continues to foster empiricism; to encourage the idle research, so long fruitlessly pursued, of specific remedies, and which are now preferred in croup; and throws our science into the vague and uncertain condition with which it has long been reproached.

Case III. M. R. a fine lad, six years of age, had enjoyed generally good health, with the exception of a severe attack of pleurisy and gastric inflammation, when four years old, from which he recovered with difficulty.

June 5th, 1827, was seized with fever attended with head-ache; he had been complaining for some days, but without any marked symptoms. Took at bed-time, magnes. calc. ʒss., sulph. magnes. ʒii.

6*th.*—Bowels opened; continued feverish; complained of sore throat. Evening. Fever augmented. Vs. 8 oz.

7*th.*—Cough, and expectorated a fetid, puruloid matter; epistaxis; fever lessened, and appeared improving.

8*th.*—Became suddenly hoarse, and could only speak in whisper; respiration easy; coughed up viscid phlegm, of nearly membranous consistency; fauces red, no appearance of membrane on them; tonsils enlarged, with slight ulceration. Calomel, gr. viii.; magnes. alb. ℈i.; poultice to neck; warm bath. Evening. Respiration free; fever subsided; profuse perspiration; bowels had been freely evacuated.

9*th.*—Increase of fever; respiration more embarrassed, with stridulous sound in coughing, but not in breathing; cannot speak above a whisper; ulcers on tonsils extended, and posterior fauces covered with white exudation. Fifty leeches to the throat; solut. of antimon. tartarisat. ʒss. every two hours; applied by a pencil to the fauces, solution of nitrate of silver, gr. xii. to ʒi. water, according to the recommendation of Dr. Mackenzie; pediluvia. Evening. Profuse sweat; respiration attended with a rattle of mucus in trachea, but not stridulous or croupy; fever reduced.

10*th.*—Symptoms aggravated; respiration attended with sound of croup; fauces and tonsils covered with exudation; no fever; skin cool;

pulse natural. Sinapism followed by blister to the throat; calomel, gr. ii. every hour; applied solution of caustic to fauces, increased the strength gr. xxiv. to ʒi. of water. Solution of antimon. tart. continued; vomited frequently; respiration was apparently relieved for a time; no fever during the day. 9 P. M. Awoke from sleep nearly strangled, produced by a foreign substance engaging in the glottis; was vomited by solution of tartarised antimony, and appeared relieved; respiration natural, excepting when coughing—it then assumes a barking sound.

11*th.*—During night awoke several times with strangling; respiration at intervals stridulous, and then free; voice more distinct. Continue calomel with addition of ipecac. gr. ¼, to each powder; fifty leeches to the throat. Leeching was followed with improvement in the respiration and diminution of the cough; pulse soft and natural; no return of fever; posterior fauces clean, exudation has disappeared. Has vomited repeatedly during the day, and discharged a viscid mucus, mixed with firm lymph. Evening. Without fever; skin moist and pulse natural.

12*th.*—Passed a comfortable night; entire absence of fever; pulse perfectly natural; respiration quite easy; bowels not opened since yesterday. Calomel, gr. i., ipecac. gr. ¼, every hour; castor oil, ʒii. at two o'clock. Fauces remained free of membranous exudation, rather pale colour; cough has harsh sound, and is at times attended with strangling. Evening. Febrile exacerbation; bowels opened twice; breathing less natural, attended with wheezing; complains of difficulty in getting his breath. Sixty leeches around the throat; hive syrup, ʒi. every hour. Respiration became easier after leeching; was frequently vomited, and discharged tenacious mucus.

13*th.*—Slept but little during the night; was restless; respiration laboured, harsh; cough constant, severe; sound of a loose body in the trachea. Inhalation of vapour of vinegar; calomel, gr. ii.; ipecac. gr. ¼, every hour. Cough was incessant from 11 o'clock to 3; the little patient was conscious of some body in the windpipe rising up and falling back; repeatedly attempted to seize it with his fingers; much exhausted. Administered solution of tartarised antimony, and excited vomiting, which procured discharge of some pieces of membrane. This was followed with immediate relief; fell into a sleep that continued until 8 P. M.; awakened by cough, but considerably recruited; respiration harsh, and cough and strangling renewed, though not as incessant as before; more membrane appears to be loosened in the trachea; attempted to dislodge it by provoking sneezing with snuff,

but without effect; produced vomiting, but brought away only tenacious mucus; was easier after it, and fell asleep; bowels opened twice in the day; stools bilious.

14*th.*—Terrible night; constantly threatened with suffocation, the danger of which became more and more pressing; the glottis appeared to be nearly closed by some mechanical obstruction; auscultation manifested healthy respiratory murmur in both lungs, showing all the difficulty to exist in trachea and larynx. This induced me to propose and urge bronchotomy as affording a chance of safety. At 1, Dr. J. R. Barton performed the operation of bronchotomy. The patient was then at the last gasp, and had ceased to respire about half a minute before it was completed. The operation was performed with Dr. Barton's usual skill, though the patient was convulsed from suffocation during its performance. On the trachea being opened, a gush of fluid took place from the wound, mixed with blood of a venous hue, and carrying with it some detached pieces of membrane; respiration was renewed through the aperture, and the blood discharged became florid. A mass of loosened membrane was seen in the trachea, part of which was removed by forceps introduced into the trachea, and the remainder was driven into the opening by a violent spasmodic effort of the muscles of respiration, in an attempt apparently to cough. It was immediately seized with the forceps and withdrawn. When unfolded, it exhibited the form of the trachea, its bifurcation, and several ramifications of the bronchia; relief was immediate; respiration natural in frequency and force; some wine and water were administered; in half an hour the colour of the lips became roseate; the animal heat was increased to its natural degree, and muscular strength renovated; respiratory murmur distinct and natural in both lungs; was cheerful, attempted to converse, sat up in bed, and favourable anticipations were indulged. The afternoon was passed in a comfortable state, with occasional sleep; at 8 P. M. pulse was more irritated; skin of febrile heat; respiration laboured; a mucopurulent discharge commenced from the aperture in the trachea; these symptoms continued to advance, the discharge became more viscid, and so abundant, it was difficult to keep the opening free; the respiration was more and more laborious; mucous ronchi were heard in every part of the chest; the sense of distress and suffocation augmented; relieved by coma, and finally death, at 5 A. M. of the 15th, seventeen hours after the operation.

Autopsy. Examination thirteen hours after death.—Body thin; limbs slightly rigid; no appearances of putrefaction.

Abdomen. The stomach was distended; contained a quantity of

clear fluid, principally the drinks he had taken previous to death; a thick, white, tenacious mucus, in considerable quantity, adhered to the lining or mucous membrane; in cardiac extremity this membrane was of brown colour; of whitish colour in other portions; thickness and consistency of the membrane no ways altered.

The intestinal tube appeared in natural condition throughout, as it respected colour, consistency, and thickness; secretions natural. Spleen and liver in normal state.

Thorax. Right lung. The pleural surfaces adhered firmly in every part; this condition had resulted from the former severe attack of gastro-pleuritis. The bronchial tubes were filled with a serous frothy fluid which discharged from them when divided. Left lung. No pleural adhesions; collapsed; was crepitating; bronchial tubes contained frothy mucus in small quantities.

Trachea and larynx. The interior of the larynx was completely incrusted over, with membraniform exudation; it lined the internal face of the epiglottis; the external was free of it; the rima glottidis was nearly closed by it. The ventricles of Morgagni, the ligaments, &c. were no longer apparent from the thickness of the membranous layer, spread over the interior of the larynx. This layer adhered firmly to the mucous membrane, but its surface was irregular, appearing as though pieces had been detached.

The membraniform exudation extended through the trachea, and penetrated the bronchia, below its ramification, but did not enter the smaller divisions. At the ramification, the calibre of the bronchial tube was so much diminished as merely to admit a small quill. In the trachea, the exudation was closely adherent to the mucous membrane; in the bronchia it was detached and tapered off to a point. It could be separated, in the thickest portions, into layers, appearing to have been formed by successive exudations.

The lower portion of the trachea and the bronchia contained a fluid of the consistency and possessing the colour of cream; the tonsils and posterior fauces were covered with a copious, thick, viscid mucus, strongly resembling albumen. The fluid of the trachea, I suspect came from this source, and the alteration of its colour, proceeded from its mixture with the air. I observed before death, that every act of inspiration produced a singular rattling sound. The copious secretion from the fauces, could not be expectorated, in consequence of the opening into the trachea, which destroyed the phenomenon of coughing, and it was drawn into the trachea by the effort of inspiration. Hence the windpipe was filled with it, respiration embarrassed, and suffocation ensued from its accumulation in the trachea

and bronchia, with that of the bronchial secretions, in the lungs, from the impossibility of expectorating them, by the loss of the power of coughing.

The preceding cases justify the following conclusions:—

1st. That inflammation of the tonsils is a frequent precursor to croup in children; and that it ought consequently always, in them, be attentively watched, and should be treated very actively by the means best adapted to reduce inflammation.

2d. That the membranous exudation may commence in the lower part of the trachea and the bronchia, extending upwards, and does not invariably arise in the fauces or larynx, and proceed downwards.

3d. That the most prompt and decisive remedy for sanguine inflammation—that is, sanguineous depletion—is the only certain remedy, and should be resorted to in the first periods of the disease, so as to precede the membranous exudation.

4th. That the membranous exudation having been once produced to any extent, little expectation of a recovery is to be entertained. When this result does occur, it is to be regarded as fortuitous, depending on some extraordinary circumstance, and which cannot be calculated as a probable event.

5th. That when the membranous exudation has been thrown out in the larynx, trachea, and bronchia, the application of muriatic acid to the fauces, so highly extolled by Bretonneau, and of nitrate of silver, recommended by Dr. Mackenzie, from the local and limited impression they must necessarily make, can promise no beneficial operation—their influence cannot be extended to the surfaces from which the exudation takes place. This practice can be of utility only in rare cases, where the difficulty arises from an obstruction limited to the glottis and fauces.

6th. That laryngotomy, or bronchotomy, is a useless operation, when the membranous exudation has actually occurred, and extends, as it mostly does, to the trachea and bronchia; or, when the inflammatory irritation of the respiratory mucous membrane is not subdued, and a free secretion from it is produced. The impossibility of coughing after the operation, prevents expectoration, the fluids accumulate in the trachea, bronchia, and bronchial ramifications in the lung, causing, finally, suffocation. The only case in which the operation promises success, is an obstruction confined entirely to the glottis, without disease prevailing to any extent in the respiratory mucous membrane.

ART. XIV. *Meteorological Observations made in the City of Philadelphia, latitude* 39° 57′, *and on the Island of Tinicum, eleven miles south-west from Philadelphia, latitude* 39° 48′ *for the year* 1826.* By GEORGE F. LEHMAN, M. D. Lazaretto Physician of the Port of Philadelphia.

JANUARY, 1826.

DAYS.	FAHRENHEIT'S THERMOMETER.			WINDS.	WEATHER.
	9 A. M.	12 M.	3 P. M.		
1	39	44	41	S. W.	Cloudy. Rain.
2	28	31	30	S. W.	Overcast.
3	30	31	35	S. W.	Clear.
4	35	39	37	S. W., W.	Clear.
5	20	26	25	S. W., N. W.	Clear.
6	22	27	30	S. W., N. W.	Clear.
7	34	35	38	S. W.	Cloudy. Light rain.
8	43	45	47	S. W.	Cloudy. } Foggy weather.
9	43	49	50	S. W.	Cloudy. }
10	49	52	54	S. W.	Clear.
11	40	44	44	S. W.	Clear.
12	39	42	44	S. W., S.	Overcast.
13	35	39	43	W., S. W.	Clear.
14	44	48	52	S., N. E.	Flying clouds.
15	51	53	44	S. W.	Cloudy.
16	32	32	31	S. W., S. by N.	Clear.
17	29	31	33	N. W.	Clear.
18	30	33	35	N. W.	Clear.
19	30	36	37	S. W., W.	Overcast.
20	30	30	32	N. W., N. E.	Clear.
21	29	33	34	N. E.	Clear.
22	29	31	36	N. W., S. W.	Clear.
23	36	40	42	S. W., S.	Clear.
24	36	37	35	E., W.	Cloudy. Snow.
25	16	17	16	N. W.	Clear.
26	16	19	22	N. W.	Clear.
27	22	32	38	S.	Overcast.
28	36	36	37	S., N. W.	Cloudy.
29	34	40	39	S., N. E.	Clear.
30	25	28	28	N. E.	Cloudy. Snow.
31	12	14	15	N. E.	Cloudy. Snow.

* The observations were made in the city, for the months of December, January, February, March, April, and May; and on the Island, for June, July, August, September, October, and November. The vane upon which I relied during the winter months having proved untrue, I am indebted for the correction of the winds, &c. to the record of the Pennsylvania Hospital, and Health-office, kept by Mr. Thomas Smith and Joseph Pryor.

Total rain during the month - - - - -	1.23 inches.
Mean temperature - - - - - -	34.60° Fahr.
Maximum - - - - - - - -	54°
Minimum - - - - - - - -	12°
Range of Thermometer - - - -	42°

Hottest day, 10th.—Coldest day, 31st.

Comparison with January, 1825.

Mean temperature - - - - - -	0.42° less this year.
Maximum - - - - - - - -	7° greater.
Minimum - - - - - - - -	8° less.

January 3d.—There was a heavy fall of snow at Quebec, and on the 5th, the thermometer fell to 8° below zero.

Hallowell, Maine, January 4th.—The rain, which fell with little intermission during Friday and Saturday last, produced a freshet which has cleaned out the ice from the river, and inundated the wharves. A winter freshet, sufficient to break up the ice, has not occurred in the Kennebeck before for eighteen years.

New Jersey, January 10th.—The weather since the commencement of winter has been very changeable. Last week large masses of ice were floating in the river, now there is scarcely any.

Quebec, January 11th.—The present winter has been remarkable for sudden and great variations of temperature; a few very cold days, the thermometer down to between 10° to 20° below the zero of Fahrenheit, and then rising to between 10° to 20° above freezing. The last cold was on the 5th instant, when the thermometer was down to 10° below zero. On the 9th, during the night and next morning, it rained heavily, wind at north-east.

Albany, N. Y. January 12th.—The river in the neighbourhood of this city is entirely free of ice. The rise of water has been great.

Mount Carbon, Penn. January 13th.—For more than a week past, the weather has been singularly warm and mild, with occasional showers.

Norfolk, Virginia, January 16th.—On the night of the 14th, about 10 o'clock, a violent tornado suddenly arose this side of Suffolk, extending about half a mile, which did considerable damage to property. Its duration was about fifteen minutes. Large white oak trees of the diameter of two feet were uprooted.

Raleigh, North Carolina, January 17th.—The weather last week was mild as spring. On the night of the 14th we had a violent storm of rain and wind, accompanied with thunder and lightning. On the 15th, there was a sprinkling of snow, and yesterday morning the thermometer was down to 38°.

Quebec, January 19th.—The health of this city since the beginning of last autumn has been worse than for many years past. The chief character of the diseases was inflammatory, probably owing to the great heat of the summer, and the extraordinary mildness of the weather to this period.

Providence, Rhode Island, January 27th.—During the late warm weather, multitudes of grasshoppers were seen in Warwick, ten miles distant from Providence.

Philadelphia, January 30th.—It commenced snowing between 8 and 9 o'clock A. M. and continued until 4 P. M. The average depth was between three and four inches.

The influenza prevails pretty generally in Pennsylvania, and in the adjoining states.

FEBRUARY, 1826.

DAYS.	FAHRENHEIT'S THERMOMETER. 9 A. M.	12 M.	3 P. M.	WINDS.	WEATHER.
1	11	13	18	N. W., N. E.	Clear. Cloudy.
2	27	33	34	N. E., S.	Cloudy. Snow.
3	35	37	37	S. W., N.	Clear.
4	29	33	35	N. W.	Clear.
5	35	35	40	N. W., W.	Overcast.
6	31	39	41	W.	Clear.
7	35	38	39	S. W.	Cloudy. Rain.
8	39	41	42	W., S. W.	Clear.
9	31	35	36	N. W., N.	Clear.
10	36	38	42	S. W.	Cloudy. Light rain.
11	40	43	46	S. W.	Cloudy. Rain.
12	35	45	46	S. W., W.	Cloudy. Clear.
13	40	40	41	N. W., N.	Clear.
14	39	42	45	E.	Cloudy.
15	28	29	31	N. W.	Clear.
16	31	34	37	N. W.	Clear.
17	36	35	36	N. W.	Clear. Overcast.
18	29	30	31	N. W.	Clear.
19	32	36	36	N. W., W.	Overcast.
20	33	35	35	N. E.	Cloudy. Rain.
21	36	36	39	N. E.	Cloudy. Rain.
22	36	38	38	N. W.	Cloudy.
23	31	39	43	N. W.	Clear.
24	44	49	54	S., W.	Cloudy.
25	52	63	63	S., S. W.	Clear.
26	50	55	56	S. W.	Clear.
27	40	42	41	N. E.	Cloudy. Rain.
28	37	37	38	N. E.	Cloudy. Rain.

Total rain during the month - - - - - 2.41 inches.
Mean temperature - - - - - 37.60° Fahr.
Increase of heat from last month - - - 3°
Maximum - - - - - - - - 63°
Minimum - - - - - - - - 11°
Range of Thermometer - - - - 52°

Hottest day, 25th.—Coldest day, 1st.

Comparison with February, 1825.

Mean temperature - - - - - 1.61° greater this year.
Maximum - - - - - - 9° greater.
Minimum - - - - - - 6° less.

Albany, N. Y. February 1st.—The earth is now covered three inches deep with snow, and the weather is extremely cold.

Philadelphia, February 2d.—At daylight the thermometer was 4° above zero.

Boston, Mass. February 2d.—The weather continued severely cold yesterday.

In the morning the thermometer was as low as 14° below zero. The harbour is now completely frozen.

Philadelphia, February 4th.—Before sunset a large flight of wild pigeons passed over the city, steering their course to the Jersey cedars. This migration is at least a month earlier than usual.

Philadelphia, February 8th.—The Delaware river, which closed for the first time this season on the night of the 31st of January, again opened and became navigable this morning.

New York, February 21st.—The weather continues changeable. Yesterday morning between 2 and 3 o'clock with mild and calm weather, snow began to fall, and continued until after 12 meridian—the greatest fall of snow during the season. The afternoon was mild without sunshine, and a drizzling rain set in about dark.

Fort Niagara, February 22d.—The winter has been stormy and unpleasant, the weather cold and changeable. Yesterday the thermometer stood at 50° above zero, and to day it is 20°. It has been as low as 4° below zero.

Mifflintown, Penn. February 25th.—For the last ten days we have had every indication of approaching spring. The ground is almost free from frost, and the late rains have raised our river.

Harrisburg, Penn. February 27th.—The weather of last week was remarkably mild. The Susquehanna is clear of ice. Flights of pigeons have been observed for several days, and the wild geese are on their way to the lakes.

York, Penn. February 28th.—A very large flock of crows flew over our town on the 24th instant, to the north.

In the southern states, the influenza prevails most extensively and severely.

MARCH, 1826.

DAYS.	FAHRENHEIT'S THERMOMETER. 9 A. M.	12 M.	3 P. M.	WINDS.	WEATHER.
1	37	38	38	N. E.	Cloudy. Rain.
2	40	39	42	N. E.	Cloudy. Rain.
3	43	45	48	N. E.	Cloudy. Rain.
4	44	49	51	S. W., N. W.	Cloudy. Rain.
5	49	51	54	N. E.	Cloudy. Rain.
6	50	52	53	N. E.	Cloudy. Rain.
7	39	41	43	N. E.	Cloudy.
8	40	40	43	N. E.	Cloudy. Rain.
9	46	49	51	S.	Clear.
10	62	65	69	S. W.	Cloudy. Rain.
11	49	50	53	N. W.	Clear.
12	36	48	50	S. E.	Overcast.
13	46	50	54	N. W.	Clear.
14	38	41	44	N. E., S. W.	Clear.
15	39	46	49	S. W.	Cloudy. Showers.
16	49	52	51	S. W., N. W.	Clear. Wind very fresh.
17	31	34	38	N. W., N.	Clear.
18	34	36	36	N. E.	Cloudy. Rain and Snow.
19	37	38	38	N. E.	Cloudy. Rain and Snow.
20	39	40	41	N. E., S. W.	Cloudy. Rain, with thunder and lightning.
21	37	40	41	N. W.	Clear.
22	39	42	47	N. W., S. W.	Clear.
23	41	54	61	N. E., N. W.	Overcast.
24	64	68	69	S. W.	Cloudy. Rain. Thunder and Lightning.
25	45	44	43	N. W.	Clear.
26	37	38	39	N. W.	Clear.
27	35	36	39	N. W., W.	Clear.
28	39	44	49	S. W.	Cloudy. Showers.
29	45	48	50	S., N. W.	Overcast.
30	40	44	45	N. W.	Clear.
31	35	44	47	N. W.	Clear.

Total rain during the month - - - - - 3.65 inches.
Mean temperature - - - - - - 45.02° Fahr.
Increase of heat from last month - - - 7.42°
Maximum - - - - - - - - 69°
Minimum - - - - - - - - 31°
Range of thermometer - - - - - 38°

Hottest day 24th.—Coldest day 17th.

Comparison with March, 1825.

Mean temperature - - - - - - 2.78° less this year.
Maximum - - - - - - - - 3° greater.
Minimum - - - - - - - - 5° less.

Fayetteville, N. C. March 1st.—For several days past, the weather has been so uncommonly warm that vegetation has progressed to a surprising degree. Many peach trees are in full bloom.

Columbus, Ohio, March 2*d.*—The greatest fall of snow this winter, was on Sunday evening and Monday last.

St. Louis, Missouri, March 2*d.*—On Monday last a greater fall of snow occurred than we have witnessed for at least five years. Our winter has been uncommonly long and dry, and more uniformly cold than usual.

Mount Carbon, Penn. March 3*d.*—We have had during the week, several very fine spring days, and a considerable quantity of warm rain.

Greensburg, Penn. March 3*d.*—For the last three or four days it has rained almost uninterruptedly.

Wiscasset, Maine, March 3*d.*—On Sunday last, about a mile from this village, large numbers of grasshoppers were discovered jumping and moving about with as much vigour as in the summer season.

Salem, Mass. March 4*th.*—For several days the weather has been warm and pleasant, the thermometer ranging from 35° to 53°.

Goshen, N. Y. March 5*th.*—The effects of the late storm among the fruit, ornamental and forest trees, have been disastrous in the extreme. Never before was such a body of ice known to cleave to them, or to continue on them for so long a time; the comparative weight of ice and wood as ascertained by experiment, was about thirty pounds of ice to one of wood, on small twigs.

Richmond, Va. March 6*th.*—There is every indication of spring. On the morning of the 4th, there was a long and continual succession of thunder and lightning. The heat was very oppressive. On the 5th, at two o'clock, the thermometer stood in the shade at 75° on Shockœ-hill, this day at 84°. Shad are already in market. The garden violet is in flower, and the apricot is in bloom.

Alexandria, D. C. March 5*th.*—The weather is oppressively warm. Immense flocks of wild pigeons are now visiting this part of the country.

Cincinnati, Ohio, March 7*th.*—Incessant rains have fallen for several days, and the river is very high, and still rising.

Cheraw, S. C. March 3*d.*—The thermometer is ranging from 75° to 81°. Peach trees have been in bloom for some days, and corn and peas are in considerable progress. Our river is unusually high, and the banks are overflown.

Petersburgh, Va. March 4*th.*—The thermometer in a cool situation is at 85°. Already the early fruit trees, such as the peach, apricot, &c. are in full blossom.

Pittsburgh, Penn. March 8*th.*—There has been a fine rise of waters, occasioned by heavy rains.

Harrisburg, Penn. March 9*th.*—Thousands of swans and wild geese now cover the Susquehanna, in the vicinity of this place, which is very unusual, and can only be accounted for from the fact that ten days ago the Alleghany Mountains, south of us, were covered with snow. The Susquehanna is higher than it has been for some seasons past.

Charleston, S. C. March 13*th.*—After three weeks of unusually warm and dry weather, we had a copious shower of rain on the 11th, attended by thunder and lightning.

Middletown, Penn. March 24*th.*—About one o'clock we were visited by a severe storm, with heavy rain, which lasted with unabated violence for two hours.

Montgomery, Al. March 24*th.*—Our spring has been remarkably mild and pleasant until within a few days. On the night of the 20th, a severe frost injured cotton that had made its appearance above ground. The weather is again warm.

APRIL, 1826.

DAYS.	FAHRENHEIT'S THERMOMETER. 9 A. M.	12 M.	3 P. M.	WINDS.	WEATHER.
1	45	59	54	N. W.	Clear.
2	45	52	53	N. W., N. E.	Clear. Overcast.
3	44	48	48	N. E.	Cloudy.
4	48	55	54	S. W.	Clear.
5	47	51	51	S. W.	Clear. Hyacinth in full bloom.
6	40	40	40	N. E.	Cloudy. Rain. Thunder and lightning.
7	41	44	44	N. E. very fresh.	Cloudy. Rain.
8	41	45	47	N. W., S. W.	Clear. Ice early in the morning.
9	48	52	54	S. W.	Cloudy. Rain.
10	36	36	37	S. W.	Cloudy. Rain. Snow.
11	31	35	33	N. W.	Cloudy. Wind high. Snow at night.
12	32	35	37	N. W.	Clear.
13	39	45	46	S., S. W.	Clear. Cloudy. Frost A. M.
14	46	49	50	S. E., S. W.	Cloudy. Showery.
15	51	55	60	S. W., N. E.	Clear. Wind fresh.
16	56	63	61	S. W., S. E.	Cloudy. Showers.
17	51	62	62	N. W.	Clear.
18	61	73	75	S. W., N. W.	Cloudy. Showers.
19	59	65	65	S. W., N. W.	Clear.
20	56	60	60	N. W., W.	Cloudy.
21	46	52	51	N. W.	Clear. Wind very high.
22	44	49	48	N. W.	Cloudy.
23	43	52	56	S. W., N. W.	Clear.
24	45	54	59	W.	Cloudy. Shower. Lightning.
25	50	57	59	N. E.	Cloudy. Rain.
26	47	50	54	N. E.	Cloudy. Rain.
27	49	49	48	N. E.	Cloudy. Rain.
28	51	54	58	N. E.	Cloudy.
29	54	60	68	S. W.	Cloudy. Shower, and thunder and lightning.
30	50	59	64	N. W.	Clear.

Total rain during the month	2.79 inches.
Mean temperature	50.52° Fahr.
Increase of heat from last month	5.50°
Maximum	57°
Minimum	31°
Range of thermometer	44°

Hottest day, 18th.—Coldest day, 11th.

Comparison with April, 1825.

Mean temperature	5.59° less this year.
Maximum	4° greater.
Minimum	3° less.

New York, April 1st.—The wind has blown with violence for nearly forty-eight hours from the north-west.

New Haven, Connecticut, April 4th.—A meteor passed over this city at half past seven o'clock on Friday evening, in a westerly direction; soon after which an explosion was heard.

Hamilton, Ohio, April 5th.—During a severe thunder storm a flash of lightning struck the chimney of the dwelling of James Bual, and caused the death of his wife, two children, and mother-in-law.

Newport, Rhode Island, April 8th.—On the 20th of March, about half past seven P. M., a bright and beautiful meteor passed in full view of the inhabitants of this town. Its diameter was apparently about one quarter that of the full moon, and the light emitted from it much more brilliant. Its course was from east to west.

Lexington, Kentucky, April 10th.—Every thing is covered with snow. It continued to snow nearly the whole day, the wind at west, and very cold. On the eleventh, the thermometer stood at sunrise 10° below freezing. The fruit, which was generally in blossom, or had cast the bloom, is entirely killed.

Cincinnati, Ohio, April 11th.—For two days past most extraordinary weather has prevailed here. On the morning of the 9th it commenced raining, and continued till about 5 P. M., when it set in to snow, and during the night more snow fell than we have had at any time the past winter. On the 10th it was cold and blustering, and more snow fell. The snow was two inches deep, and the fruit trees in full bloom.

Mount Carbon, Penn. April 14th.—Rain, snow, and frost alternately, have prevailed during the whole of the spring.

Montreal, Canada, April 14th.—About 11 o'clock at night a meteor was discovered directly over this city, which for a moment shed a most brilliant light. The size appeared to be many degrees larger than the moon when at full, and was visible about two or three seconds.

Charleston, S. C. April 27th.—The weather has been excessively warm for a few days, and on the 26th a violent squall commenced, which continued with great violence for an hour, attended with thunder and lightning.

Chillicothe, Ohio, April 29th.—A tremendous storm of wind and rain occurred, which exceeded in violence any with which we have been visited for many years, and did considerable damage to garden and fruit trees, fences and houses.

Kingston, Jamaica, April 30th.—Two slight shocks of an earthquake were felt.

MAY, 1826.

DAYS.	FAHRENHEIT'S THERMOMETER. 9 A. M.	12 M.	3 P. M.	WINDS.	WEATHER.
1	56	65	65	S. E., E.	Cloudy.
2	66	75	76	S. E., S. W.	Clear.
3	74	78	79	S. by E.	Cloudy.
4	70	78	76	S. W.	Hazy. Clear.
5	69	73	72	N. W., S. W.	Cloudy.
6	60	63	64	N. W., W.	Clear.
7	61	70	76	S. W.	Cloudy.
8	63	69	68	N. W., N.	Clear.
9	58	59	60	S. E.	Cloudy. Rain.
10	57	59	61	S. E.	Clear. Cloudy. Rain.
11	63	66	69	N. W., S. W.	Clear.
12	64	71	73	N. W., W.	Clear.
13	66	73	76	S. W.	Clear.
14	70	82	86	S. W.	Cloudy. Clear.
15	78	85	84	N., S. W.	Clear.
16	79	86	83	S. W., W.	Hazy.
17	79	85	86	S. W., W.	Clear.
18	71	78	78	N., N. W.	Clear.
19	69	74	74	N. W., N.	Hazy.
20	68	72	76	S. E., S. W.	Hazy. Clear.
21	72	75	79	S. W.	Cloudy. Shower.
22	73	80	79	N. W.	Cloudy. Thunder.
23	77	81	82	S. W.	Clear. Cloudy.
24	79	86	84	N. E.	Clear. Cloudy.
25	73	78	78	N. E.	Clear.
26	68	73	76	N. E., N. W.	Cloudy. Hazy.
27	73	81	81	N. W.	Clear.
28	79	80	83	N. W.	Cloudy.
29	69	73	73	N. W.	Clear.
30	64	69	69	N., N. W.	Clear.
31	70	74	75	N. W., W.	Clear.

Total rain during the month - - - - - -	0.18 inches.
Mean temperature - - - - - - - -	74.56° Fahr.
Increase of heat from last month - - - -	24.4°
Maximum - - - - - - - - -	86°
Minimum - - - - - - - - -	56°
Range of the thermometer - - - - -	30°

Hottest day, 17th.—Coldest days, 9th and 10th.

Comparison with May, 1825.

Mean temperature - - - - -	8.65° greater this year.
Maximum - - - - - - - -	5° greater.
Minimum - - - - - - - -	7° greater.

Quebec, May 1st.—The weather continues chill and ungenial; a good deal of snow still remains.

Richmond, Vir. May 11th.—About midday a complete circle was visible around the sun, which continued near an hour and a half.

St. Louis, Missouri, May 12th.—The waters of the Mississippi are supposed to be as high as at the great fresh of 1811.

Charlotteville, Vir. May 13th.—Immense swarms of locusts are making their appearance among us.

New Orleans, May 13th.—The weather for the last week has been extremely warm. The Mississippi last season did not obtain by three inches the height it is now at.

Montreal, Canada, May 17th.—The weather has been oppressively warm. On the 15th and 16th the thermometer was 88° in the shade.

Kennebunk, Maine, May 17th.—About half past three o'clock a severe tornado visited this part of the country. For two or three days previous the weather had been uncommonly warm, the thermometer ranging from 90 to 100°.

Morristown, New Jersey, May 18th.—The thermometer has ranged between 88 and 92° in the shade since the 14th, and no rain has fallen for a fortnight.

Petersburg, Vir. May 19th.—No rain has fallen here since the 3d instant, and vegetation is suffering. Immense swarms of locusts have appeared. The thermometer has ranged for the last few days from 85 to 90°.

Georgetown, S. C. May 19th.—The Pee Dee river is very low, the weather warm, and the earth parched.

West Chester, Penn. May 23d.—The last three weeks have been extremely dry, and sometimes oppressively warm.

Newark, New Jersey, May 23d.—No rain has fallen for three weeks, and the weather is extremely hot.

Norristown, Penn. May 24th.—During several days last week the atmosphere was so dense and smoky as to obstruct the influence of the sun. The great drought has been succeeded by copious showers.

Norfolk, Vir. May 24th.—Much rain usually falls in the months of April and May. From the 3d to the 22d of the present month not a drop has fallen in this section of the country.

Savannah, Georgia, May 25th.—A season of more excessive drought than the present comes not within our recollection.

Quebec, May 25th.—The weather continues warm, and remarkably dry.

New York, May 27th.—The weather continues hazy, and the winds every twenty-four hours blow lightly from all points of the compass. We have had no rain for nearly a month.

Norfolk, Vir. May 28th.—In the afternoon and evening we had copious showers of rain, with continual thunder and lightning. The drought had prevailed for four weeks.

A long and extraordinary drought prevails in North Carolina.

Kent County, Delaware, May 30th.—Vegetation is nearly all destroyed. We have had no rain to wet the ground for a month past.

Richmond, Vir. May 30th.—Several thunder storms of unusual violence have lately passed over this city.

New Brunswick, New Jersey, May 31st.—The long-continued dry weather, and extreme heat, has nearly dried up our pasture fields and meadows, and the fields of wheat and rye assume a sickly aspect. Immense swarms of locusts are destroying our little vegetation.

JUNE, 1826.

DAYS.	FAHRENHEIT'S THERMOMETER 9 A. M.	12 M.	3 P. M.	WINDS.	WEATHER.
1					
2	76	82	87	S. W.	Clear. Air electric at night.
3	82	86	86	S. W.	Clear. Shower at night with thunder and lightning.
4	80	84	82	S. W.	Clear. Cloudy. Rain P. M. Thunder and lightning.
5	78	75	74	N. E. fresh.	Cloudy. Sprinkle of rain.
6	59	64	66	N. E.	Cloudy.
7	66	71	74	S. W.	Cloudy.
8	76	80	82	S. W., N. W.	Clear.
9	80	83	86	E., S.	Clear.
10	76	81	84	N. E., S. W.	Clear.
11	80	86	87	S. W., N. W.	Clear. Twelve at night a gale from N. W.
12	69	73	76	N., N. W.	Clear.
13	71	74	76	N. E.	Clear.
14	70	74	75	N. E., S. E.	Clear.
15	71	78	81	S. W.	Clear. Thermom. 60° at sunrise.
16	73	76	72	N. E.	Cloudy. Sprinkle of rain.
17	70	70	71	N. E., E.	Cloudy. Sprinkle of rain.
18	69	70	70	E.	Cloudy. Moderate rain all day. Hard rain at night.
19	72	74	75	S. E., N. E.	Cloudy. Fine rain.
20	71	72	74	N. E.	Cloudy. Sprinkle of rain. Clear.
21	66	69	69	N. E.	Cloudy. Drizzle of rain at night.
22	62	64	64	N. E.	Cloudy. Drizzly.
23	63	65	68	N. E.	Cloudy. Sprinkle of rain.
24	66	71	74	N. E., S. W.	Cloudy. Clear. Shower at night with thunder and lightning.
25	73	78	80	S. E., S. W.	Cloudy. Hard showers with thunder and lightning.
26	72	78	80	S. E., S. W.	Cloudy. Clear. A gale A. M. from S. E. with rain.
27	72	74	74	N. W.	Clear. Cloudy. A shower of rain.
28	72	75	78	S. W. fresh.	Clear.
29	78	80	82	S. W. fresh.	Clear. Cloudy. Very heavy rain at sunset, wind fresh, with thunder and lightning.
30	76	76	78	W.	Hazy.

Total rain during the month - - - - 4.96 inches.
Mean temperature - - - - - 72.17° Fahr.
Decrease of heat from last month - - - 2.39°
Maximum - - - - - - - - 87°
Minimum - - - - - - - - 59°
Range of thermometer - - - - 28°

Hottest day, 11th.—Coldest day, 6th.

Comparison with June, 1825.

Mean temperature - - - - - 4.32° less this year.
Maximum - - - - - - - 1° less.
Minimum - - - - - - - the same.

Charleston, S. C. June 1st.—Fine large and ripe peaches may now be seen in this city.

St. Louis, Missouri, June 1st.—The late freshet has been very destructive. At the Mandan villages the water rose seventeen feet perpendicularly in a few hours, and at the Arrickara towns fifteen feet in two hours. The rise was owing to the melting of the snow and ice at the heads of the Yellow-stone and Chayenne rivers.

New York, June 2d.—We experienced a succession of thunder showers this afternoon and evening. *June 3d.*—The rain has not cooled the atmosphere. At one o'clock the mercury in Fahrenheit stood at 86°.

Elizabethtown, N. J. June 2d.—After a severe drought, this afternoon we had copious showers, with much thunder and lightning.

Richmond, Va. June.—On the 2d, 3d, 4th, and 5th, the thermometer ranged in different situations from 89° to 92°. On the 6th and 7th the temperature was quite agreeable.

Baltimore, June 3d.—At 5 A. M. the thermometer stood at 85°, and at 1 P. M. at 92½°. The drought still continues.

Albany, N. Y. June 4th.—This afternoon we were visited by a storm of rain, accompanied with severe thunder and lightning. The wind blew a tornado from the N. W. and there was some hail mingled with the rain.

New York, June 5th.—At 11 o'clock at night an exhalation of uncommon splendor passed over this city, in a line from south to north. The night was cool, the thermometer having fallen from 87° to 71° the day preceding, the wind northerly, and no signs of heat or lightning in the atmosphere. Nearly a minute afterward a flash in the N. W. illuminated the clouds beneath, and was followed by a report.

Norfolk, Va. June 5th.—After suffering for several days under excessive heat and drought, this afternoon we had plentiful showers, with terrific thunder and lightning.

Greensburg, Penn. June 9th.—An immense quantity of rain has lately fallen in this neighbourhood, and the crops of grain are much invigorated.

Harrisburg, Penn. June 12th.—Copious and refreshing rains have fallen for a week past.

Egg Harbour, N. J. June 13th.—A tremendous hail storm occurred which did considerable damage.

New York, June 19th.—This day 3.75 inches of rain fell. From the night of the 19th to the 22d, two inches, and from the 22d to the 23d, 1.25 inches, in all 7 inches in five days.

Montreal, Canada, June 21st.—As yet there has not been a single clap of thunder, and rain has become an object of extreme rarity. In Upper Canada a similar, but not equal drought, has been experienced.

Baltimore, June 25th and 26th.—The heavy rains have swelled the streams within the vicinity of this city to an unusual height.

New York, June 26th.—The storm which has continued for seven days is not yet over. Heavy showers have fallen this forenoon, accompanied by a gale from the south, blowing at times with the force of a hurricane.

York, Penn. June 27th.—Rainy weather prevailed all last week, and the ground has become completely saturated.

Albany, N. Y. June 27th.—About half past 1 o'clock P. M. this city and vicinity was visited by a severe hail storm. Several smart showers of rain occurred in the afternoon, accompanied with thunder.

JULY, 1826.

DAYS.	FAHRENHEIT'S THERMOMETER. 9 A. M.	12 M.	3 P. M.	WINDS.	WEATHER.
1	74	78	79	W., S. W.	Clear. Hazy. Shower at sunset.
2	74	78	79	S. W., N. W.	Clear.
3	74	77	80	S. W.	Hazy. Clear.
4	73	78	79	S. W.	Overcast. Clear.
5	73	75	74	N. E.	Cloudy. Rain. Hard rain at night.
6	71	75	78	N. W.	Clear.
7	75	81	82	N. W.	Clear.
8	78	83	85	S. W.	Clear.
9	78	80	83	N. E.	Clear.
10	75	78	82	S. W.	Clear.
11	76	80	84	S. W.	Clear.
12	78	81	86	S. W.	Clear.
13	79	82	85	S. W., N. W.	Clear. Cloudy. Hard showers.
14	74	74	74	N. W.	Cloudy.
15	71	74	74	N. W.	Clear.
16	74	77	81	S., S. W.	Cloudy. Clear.
17	77	80	83	S. W.	Clear. Shower at sunrise.
18	76	77	78	N. W.	Clear.
19	74	76	78	N. W.	Clear.
20	75	77	78	S. W.	Clear.
21	75	79	81	S. W.	Clear.
22	80	82	85	N. W.	Clear.
23	79	82	83	N. W.	Clear.
24	72	76	77	N W.	Clear. Cloudy.
25	69	72	74	N. W. fresh.	Clear.
26	68	72	73	N. W. fresh.	Clear.
27	67	70	73	N. W. fresh.	Clear.
28	70	74	76	N. W., N. E.	Clear.
29	70	75	78	N. E., S. E.	Clear.
30	71	75	78	N. E., S. E.	Clear.
31	71	74	78	E.,S.W. variable	Clear.

Total rain during the month - - - -	4.75 inches.
Mean temperature - - - - -	86.43° Fahr.
Increase of heat from last month - - -	14.26°
Maximum - - - - - - - -	86°
Minimum - - - - - - - -	67°
Range of thermometer - - - -	19°

Hottest day, 13th.—Coldest day, 27th.

Comparison with July, 1825.

Mean temperature - - - - -	6.06° greater this year.
Maximum - - - - - - - -	5° less.
Minimum - - - - - - - -	3° less.

Pennsylvania, July 1st.—Considerable damage has been done by the swelling of the waters in the interior of the state.

Boston, Mass. July 2d.—The city and neighbourhood were visited with a severe thunder shower, which lasted more than half an hour. The lightning was vivid, and some of the peals of thunder tremendous.

Portsmouth, Ohio, July 6th.—The Ohio river has been rising gradually for the last six weeks, to the extent of thirty perpendicular feet. A great deal of rain has fallen.

Wilkesbarre, Penn. July 7th.—On the afternoon of the 2d, a destructive hail storm visited Pittston township, in this county. The grain crops were beaten to the ground, and fruit trees stripped of their leaves and small twigs. The houses on the north-east side are left without a pane of glass. The hail-stones were about as large as musket balls.

Charleston, S. C. July 8th.—About twenty minutes before eleven o'clock at night, a brilliant meteor of the size of the full moon appeared in a south-west direction. Its height was 45° above the horizon, and it moved in a direct line north. It was at least fifteen seconds in its course, and the train of light it left behind was as bright and vivid as the meteor itself.

Mobile, Alabama, July 11th.—For two weeks the weather has been very hot and dry, with a prevalence of north winds, which experience has shown to be particularly unfriendly to the health of the city.

Quebec, July 14th.—On the 11th, 12th, and 13th, a good thermometer continued for hours before and after midday at 94, 95, and 96° of Fahrenheit in the shade. Exposed to the sun, the thermometer rose to 140°.

Salem, Mass. July 15th.—During the last four days the weather has been excessively hot. On the 11th, at noon, Fahrenheit's thermometer was at 98°, and on the 12th and 13th, at 96°. On the 14th a fine rain fell, and the weather changed. At eight o'clock A. M. to day, the thermometer stood at 69°, and at three o'clock at 73°.

Fayetteville, N. C. July 19th.—There never was known in this section of the country, a summer season so dry as the present. The streams have been so dry that people in some of the neighbouring counties were obliged to go forty, fifty, and even sixty miles to get their corn ground.

Richmond, Virginia, July 21st.—For several days past we have not been favoured with a shower of rain. The drought is severely felt in various directions.

Harrisburg, Penn. July 24th.—The weather was distressingly warm last week, and notwithstanding the thunder gusts that have been passing around us, it continues sultry.

Wickford, Rhode Island, was visited July 26th, with a severe hail storm from the south-west, attended with vivid lightning, and heavy thunder. The hail-stones were three inches in circumference, and fell in great quantities.

AUGUST, 1826.

DAYS.	FAHRENHEIT'S THERMOMETER. 9 A. M.	12 M.	3 P. M.	WINDS.	WEATHER.
1	74	74	76	N. W., S. W.	Cloudy. Sprinkle of rain.
2	75	78	79	N. W.	Clear.
3	70	73	75	N. E.	Clear.
4	71	75	76	N. E., S. E.	Overcast. Clear.
5	71	76	75	N. E. fresh.	Clear. Cloudy.
6	72	74	75	N. E. fresh.	Cloudy. Sprinkle of rain.
7	74	79	82	S. E., S. W.	Clear. Overcast.
8	66	70	70	N. W.	Cloudy. Rain at daylight.
9	69	73	75	N., N. E.	Clear.
10	70	74	75	N., N. E. fresh.	Clear. Cloudy. Small rain at night.
11	72	73	72	N. E. fresh.	Cloudy. Small rain.
12	72	73	74	N. E.	Cloudy. Rain.
13	74	78	80	N. E.	Clear.
14	72	76	80	N. E., S. W.	Cloudy. Clear.
15	76	79	82	N. E., E.	Clear. Cloudy. Showers, P. M.
16	76	77	78	N. E.	Cloudy. Light rain at daylight.
17	74	78	79	N. E.	Flying clouds. Clear.
18	74	79	80	N. E.	Clear.
19	76	80	84	N. E., S. W.	Clear.
20	80	86	86	S. W., E.	Clear. Cloudy. Sprinkle of rain, with thunder.
21	76	80	80	N. E., S. W.	Cloudy. Showers.
22	72	76	78	N. E., N.	Clear.
23	69	74	75	N. W.	Clear.
24	72	76	79	N. E.	Clear.
25	71	75	78	N. E.	Overcast. Clear.
26	73	76	74	N. E., S. E.	Overcast.
27	74	79	78	N. E., E.	Clear. Cloudy. Shower.
28	75	78	81	E., S. W.	Cloudy. Clear.
29	72	76	78	N. W., S. W.	Clear.
30	71	78	80	N. W., S. W.	Clear.
31	70	74	78	N. E.	Clear.

Total rain during the month - - - -	3.21 inches.
Mean temperature - - - - -	75.57° Fahr.
Decrease of heat from last month - - -	10.86°
Maximum - - - - - - - -	86°
Minimum - - - - - - - -	66°
Range of Thermometer - - - -	20°

Hottest day, 20th.—Coldest day, 8th.

Comparison with August, 1825.

Mean temperature - - - - -	0.34° less this year.
Maximum - - - - - - - -	3° less
Minimum - - - - - - - -	6° greater.

August 1*st.*—The town of Chatham, N. C. on the river Thames, was visited by a tornado, accompanied with rain and snow. For the width of a mile it pros-

trated houses, barns, fences, and trees. The snow covered the ground, and did not disappear for twenty-four hours.

Richmond, Va. August.—Two shocks of an earthquake have been lately felt in this city; one on the 9th, about nine o'clock at night, the other on the 14th, at twelve o'clock, M.

New Orleans, Louisiana, August 10th.—The weather, for many weeks past, has been extremely warm.

Trenton, N. J. August 12th.—After two day's threatening with clouds and wind from north-east, we had a heavy fall of rain. To the south and east of us the fall of rain was unprecedented. The roads are much damaged, and the meadows inundated.

Camden, N. J. August 12th.—A moderate shower of rain was experienced in this vicinity. In some remote parts of the country the rain descended in torrents, swelled the brooks and rivulets to an unusual and alarming extent, sweeping away bridges, mill-dams, and carrying almost every obstacle before the resistless fury of the current.

Boston, Mass. August 14th.—It has rained here, with little intermission, for four days and nights, in torrents, and continues without any appearance of change.

New Bedford, Mass. August 15th.—Rain has fallen almost continually for four days, accompanied by frequent flashes of lightning and heavy thunder. The quantity fallen since the 10th is nearly eleven inches.

Wilksbarre, Penn. August 18th.—A very brilliant meteor passed a little to the north of us, in the evening. It moved with a rapid pace until exhausted.

Quebec, August 21st.—For four or five weeks there has not fallen any rain, and the week just ended was the warmest experienced here for many years, the thermometer standing in the shade, at noon, at 92° to 93°. The drought has been severely felt in the district of Montreal and Three Rivers.

York, Penn. August, 27th.—One of the heaviest rains ever known, fell in the northern section of this county, along the Conawago river, while in this borough not as much fell as to moisten the dust.

New York, August 28th.—For nearly three weeks not a single day has passed, except the 26th, without copious showers during some part of the twenty-four hours; generally, however, the rain has descended at night, while the sun has shone the greater part of the day.

Boston, Mass. August 31st.—The weather for two days past has been remarkably pleasant. For the preceding nineteen days it rained almost every day, and during the greater part of the time. The quantity of rain which has fallen this month is 11.28 inches. The following table will show the quantity which has fallen since the beginning of the year.

January,	3.10 inches.	May,	0.37 inches.
February,	1.57	June,	3.80
March,	4.24	July,	3.
April,	2.07	August,	11.28

Most of the tributary streams of New England experienced a sudden and extraordinary rise, in consequence of the rain of August 28th. They rose from six to eight feet, and on the succeeding day to twelve feet, overflowing the banks and meadows, and occasioning great damage.

The malignant fever prevails at Mobile, Alabama.

SEPTEMBER, 1826.

DAYS.	FAHRENHEIT'S THERMOMETER. 9 A. M.	12 M.	3 P. M.	WINDS.	WEATHER.
1	70	77	78	N. E.	Clear. Overcast.
2	74	78	84	N. E., S.	Overcast. Clear.
3	78	83	84	S. W. fresh.	Clear.
4	79	84	86	S. W. fresh.	Clear. Cloudy. Large showers at 6 P. M. with heavy thunder and lightning.
5	78	82	84	S. W. fresh.	Clear. Overcast.
6	71	73	73	N. W. fresh.	Clear.
7	66	68	69	N. E. fresh.	Cloudy.
8	65	68	71	N., N. E.	Cloudy. Clear.
9	69	76	80	S. W. fresh.	Clear.
10	72	76	78	N. W. fresh.	Clear.
11	71	77	80	N. E., S.	Clear.
12	73	75	77	N. E.	Cloudy. A sprinkle of rain.
13	74	77	80	N. E., S. W.	Clear.
14	73	78	80	S. W., S. fresh.	Clear. Cloudy.
15	69	71	72	N. W. fresh.	Clear.
16	62	64	66	N. W. fresh.	Clear.
17	58	67	70	N. W., S. E.	Cloudy. Clear. Thermom. 50° at sunrise.
18	64	68	70	S. E., S. W.	Cloudy. Small rain.
19	67	68	68	N. W.	Cloudy.
20	64	69	70	N. E.	Cloudy. Clear.
21	65	71	74	S. W.	Clear.
22	69	74	77	S. W., S.	Clear.
23	72	73	74	S. W., S. E.	Cloudy.
24	60	61	59	N. E.	Cloudy. Rain.
25	57	58	60	N. E.	Cloudy.
26	58	64	64	N. E., E.	Cloudy. Rain.
27	72	77	79	S. fresh.	Overcast. Clear. Small rain.
28	69	68	66	N. W.	Cloudy.
29	60	64	66	S. W. fresh.	Clear. Thermom. 54° at sunrise.
30	60	64	66	N. W., S. W.	Clear. Thermom. 50° at sunrise.

Total rain during the month - - - - - -	2.10 inches.
Mean temperature - - - - - - - - -	71.17° Fahr.
Decrease of heat from last month - - - - -	4.40°
Maximum - - - - - - - - - -	86°
Minimum - - - - - - - - - -	57°
Range of thermometer - - - - - - -	29°

Hottest day, 4th.—Coldest day, 25th.

Comparison with September, 1825.

Mean temperature - - - - - - -	2.74° greater this year.
Maximum - - - - - - - - -	6° greater.
Minimum - - - - - - - - -	2° greater.

Quebec, September 1st.—Not more than four or five inches of rain have fallen since the middle of May. The drought and warmth of the summer in Lower Canada has been unparalleled.

New York, September 12th.—The drought in the western part of this state is excessive. In the vicinity of Cayuga Lake there has been no rain of consequence for ten weeks.

Richmond, Virg. September 13th.—Though we have a slight shower now and then, yet our creeks and rivers are still under the influence of the severe drought. The James' river is very low.

Charleston, S. C. September 13th.—A brilliant meteor passed over the city a few minutes before 7 o'clock P. M. Its course was from the north-west to south-east.

Quebec, September 16th.—The thermometer in the morning was at 44°, and snow fell a few miles below Quebec; the same thermometer on the 11th of July was at 93°, and on the 17th of August 92°.

Dover, New Hampshire, September 26th.—An apple tree is now to be seen here in full blossom.

The malignant fever prevails in New Orleans.

St. Jago, Cuba, September 18th.—In the morning between 3 and 4 o'clock, this city was visited with one of the most awful earthquakes that had been felt here for fifty years past, at which time nearly one-half of the town was destroyed. There were two shocks, the second more severe than the first, and the duration of each was about a minute. The noise resembled the rumbling of heavy loaded wagons, dragged over a paved archway, and finished with a tremendous explosion like the simultaneous discharge of an immense number of cannon. But few houses were thrown down, no lives lost, and the damage was comparatively trifling. Numbers of large fish were observed jumping and playing about the vessels in the harbour, just before the shock.

OCTOBER, 1826.

DAYS.	FAHRENHEIT'S THERMOMETER. 9 A. M.	12. M.	3 P. M.	WINDS.	WEATHER.
1	64	68	69	N. W. fresh.	Clear.
2	59	66	70	N. W., S. W.	Clear.
3	66	70	70	N. W.	Clear. Shower at daylight.
4	60	66	72	N. W.	Clear.
5	66	72	75	S. W., S.	Clear.
6	68	72	76	S. W.	Clear.
7	66	71	72	S. W., S. fresh.	Overcast. Cloudy. Small snow at night.
8	53	61	60	N. W.	Clear. Thermom. 46° at sunrise. Frost.
9	54	59	60	N. W.	Clear.
10	54	62	65	N., N. E.	Clear.
11	57	60	60	N. E.	Cloudy. Rain at night.
12	52	54	56	N. E., N.	Cloudy. Rain. Thunder and lightning.
13	57	59	61	N. E., N.	Cloudy. Small rain.
14	60	66	68	N. E.	Clear.
15	64	66	65	N. W., S. W.	Clear. Overcast. Small rain at night.
16	62	68	69	S. W., N. W.	Cloudy. Clear.
17	62	65	64	N., N. E.	Clear.
18	55	66	64	N. E., S. W.	Clear. Overcast. Rain at night.
19	64	65	64	W., N. W.	Cloudy. Sprinkle of rain.
20	53	55	57	N. E.	Cloudy. Rain day and night.
21	60	60	62	E., S. E.	Cloudy. Large rain.
22	54	56	59	N. W.	Overcast. Clear.
23	49	52	54	N. W. fresh.	Clear. Thermom. 42° at sunrise. Frost.
24	52	54	48	N.W. very fresh.	Clear.
25	40	48	50	S. W.	Clear. Overcast. Ice, A. M. Tomatice, Melangine, and Lima bean vines killed.
26	54	59	60	N. W., S. W.	Clear. Hazy.
27	45	48	49	N., S. W.	Clear. Ice, A. M.
28	40	53	54	S. E. fresh.	Cloudy. Thermom. 36° at sunrise. Rain with lightning and thunder at night.
29	56	58	58	S. W. fresh.	Cloudy.
30	56	60	61	N. W. fresh.	Clear.
31	48	56	58	N. W., S. W.	Clear. Thermom. 42° at sunrise.

Total rain during the month - - - - -	5.73 inches.
Mean temperature - - - - -	59.88° Fahr.
Decrease of heat from last month - - -	12.29°
Maximum - - - - - - - -	76°
Minimum - - - - - - - -	40°
Range of thermometer - - - - -	36°

Hottest day, 6th.—Coldest day, 25th.

Comparison with October, 1825.

Mean temperature - - - - -	0.59° less this year.
Maximum - - - - - - - -	2° less.
Minimum - - - - - - - -	the same.

Norristown, Pennsylvania.—On the morning of the 9th and 10th, we had for the first time this autumn sharp frosts.

Washington, D. C. October 11th.—The very warm days and nights of the last week, have been closely followed by temperate noons and frosty evenings. The thermometer so lately at 80°, now scarcely reaches to 60°.

Norfolk, Va. October 11th.—In the afternoon the wind freshened up from the northward and eastward, and during the evening increased to a heavy gale, accompanied with a deluge of rain, and an uncommon high tide all night. Towards morning the wind hauled round to the westward, but without abating its violence all day.

Petersburg, Va. October 11th.—It commenced raining moderately in the morning, and continued during the day, but not to such an extent as to create any apprehensions of a serious rise of water in the Appomattox. As night came on the rain increased, and at 12 o'clock it fell in a solid sheet, and continued till daybreak. The Appomattox river rose with unprecedented rapidity, and overflowed its banks to a considerable extent.

New York, October 12th.—About 3 o'clock in the morning a storm commenced, which lasted with but little intermission until late at night. It was very violent, and the rain poured down in torrents. In Pearl street, and all the streets below, many of the cellars are filled.

Trenton, N. J. October 13th.—A storm of wind and rain set in this town, and the adjacent country, on the 11th, and continued until this morning. Much damage has been done in various places, by the blowing down of forest and fruit trees, fences, &c. An immense quantity of rain has fallen, and the streams have generally overflowed their banks.

Centreville, Maryland, October 14th.—The weather has undergone a pleasant change within the present week, and the frosts have checked our local fevers. The past summer has been very unhealthy, particularly throughout the eastern shore of Maryland.

St. Johns, N. B. October, 25th.—To day we had a regular snow storm, the first this season. It did not lay long.

The malignant fever prevails at Norfolk, Virginia.

NOVEMBER, 1826.

DAYS.	FAHRENHEIT'S THERMOMETER. 9 A. M.	12 M.	3 P. M.	WINDS.	WEATHER.
1	59	59	59	S. W.	Cloudy. Rain. Before daylight it blew a gale from S.
2	60	61	62	N. E.	Cloudy.
3	55	58	57	N. W.	Clear.
4	40	43	35	N. E.	Cloudy. Thermom. 34° at sunrise. Snow and hail fell for two hours P. M. which melted as it fell. Rain at night.
5	37	39	42	N. E.	Cloudy.
6	47	49	50	N. E.	Cloudy. Thermom. 40° at sunrise.
7	54	60	64	S. W.	Cloudy. Clear. Gale at night from S. E.
8	48	50	52	N. W.	Clear.
9	44	52	52	S. E. fresh.	Clear. Cloudy. Ice at daylight.
10	48	53	53	S. W. fresh.	Clear.
11	46	49	51	N. W.	Clear.
12	46	53	58	S. W.	Clear.
13	40	42	47	N. W.	Clear. Thermom. 36° at sunrise.
14	40	43	45	S.E., S.W.fresh.	Cloudy. Frost.
15	53	59	60	W.	Clear.
16	49	55	58	W., N. W.	Clear.
17	59	61	63	S., S. W. fresh.	Cloudy. Rain. A gale from S. W.
18	48	49	45	N. W.	Clear. Cloudy. A gale from N. W. at night.
19	32	39	40	N. W.	Clear. Flying clouds. A spitting of snow.
20	36	43	43	N. W.	Clear.
21	38	41	42	N., N. W.	Cloudy. Clear.
22	36	39	41	N. W.	Hazy.
23	35	38	39	N. W.	Cloudy. Sprinkle of snow.
24	35	40	40	N. W.	Clear.
25	37	41	45	W., N. W.	Clear. Overcast. Rain at night.
26	55	60	53	S. W. a gale.	Cloudy. Rain all day.
27	36	40	41	S. W.	Clear. Cloudy.
28	38	41	40	W.	Cloudy. Clear.
29	34	39	41	S. W.	Clear.
30	40	44	49	S. W.	Overcast.

Total rain during the month - - - - 1.89 inches.
Mean temperature - - - - - 47.02° Fahr.
Decrease from last month - - - - 12.86°
Maximum - - - - - - - - 64°
Minimum - - - - - - - - 32°
Range of thermometer - - - - 32°

Hottest day, 7th.—Coldest day, 19th.

Comparison with November, 1825.

Mean temperature - - - - - 1.65° greater this year.
Maximum - - - - - - 6° less.
Minimum - - - - - - 2° greater.

Pittsburgh, Penn. November 3d.—The river is now two feet above low water mark, and continues rising.

Halifax, Nov. 2d.—On the opposite shore at Dartmouth, wild strawberries are in full bloom, and second crops of potatoes have been raised from seed, cut out of the first crop. They are of an ordinary size.

Milledgeville, Geo. Nov. 7th.—There has not been enough frost to injure the tenderest plant. The cotton fields in the neighbourhood are full of blossoms, and on the eve of winter we have weather almost as warm as midsummer.

Boston, Mass. Nov. 18th.—Snow has fallen this season in Montreal, Quebec, &c. to the north, New Brunswick, &c. to the east, and in Trenton, Philadelphia, &c. to the south, but not a flake has been seen here. There are many alive who all recollect, that on or before the Pope day's, (5th of November,) of olden times, there were for many years in succession snow and good sleighing.

Montreal, Canada, Nov. 14th.—There was a gradual fall of snow from 12 until 3 o'clock. The ground is covered.

St. Louis, Missouri, Nov. 16th.—The weather continues remarkably warm.

Charleston, S. C. Nov. 20th.—On the night of the 18th we had a black frost, and yesterday we saw ice 3-16ths of an inch in thickness.

Wilmington, N. C. Nov. 22d.—A continuance of very warm weather for two weeks past, has occasioned a return of sickness to the town and surrounding country. Some white frosts, and much ice have been lately formed, and will soon dissipate all remaining sickness.

New York, Nov. 23d.—The sky has been frowning upon us for several days, and about 5 o'clock this morning a snow storm commenced which continued several hours. Considerable snow has fallen to the north and west. The Quebec Mercury of the 14th, states that the weather was remarkably cold for the season. On that day a storm of snow commenced.

Baltimore, Nov. 26th.—Before daylight, and in the afternoon, the rain poured down in torrents, accompanied by heavy thunder and lightning.

DECEMBER, 1826.

DAYS.	FAHRENHEIT'S THERMOMETER. 9 A. M.	12 M.	3 P. M.	WINDS.	WEATHER.
1	45	48	47	S. W.	Clear.
2	37	38	38	W., N. W.	Clear.
3	30	31	31	N. W.	Clear.
4	29	32	33	N. E.	Cloudy.
5	33	37	39	N. W.	Clear.
6	39	42	44	N.	Hazy. Clear.
7	45	47	49	S. W.	Overcast. Hazy. Very heavy dew.
8	49	56	59	S. E.	Cloudy. Wind fresh at night.
9	55	48	47	N. W.	Cloudy. Rain.
10	35	37	42	W., N. W.	Clear. Overcast.
11	36	38	39	S. W.	Overcast. Clear.
12	35	37	41	S. W.	Clear. Overcast.
13	37	43	44	S. W.	Clear.
14	37	41	40	S. W., N. W.	Clear.
15	36	44	46	S. W., W.	Clear.
16	44	50	53	S. W.	Clear.
17	55	56	57	S. W., N. W.	Cloudy. Clear.
18	43	45	43	S. W., N. E.	Cloudy. Small snow and rain.
19	37	38	36	N. W.	Clear. Cloudy.
20	32	36	36	N. W.	Clear.
21	38	42	45	S. E.	Cloudy. Rain.
22	36	41	41	S. W., N. W.	Clear.
23	30	34	35	N. W.	Clear.
24	25	28	29	N. W.	Clear.
25	26	24	26	N. W.	Clear.
26	32	34	32	S. W.	Cloudy. Snow, rain, and hail.
27	31	28	22	N. W.	Overcast. Clear.
28	11	16	17	W.	Hazy. Cloudy. Ice floating in the Delaware.
29	16	21	25	N. E., N.	Hazy. Clear.
30	23	26	27	W., N.	Cloudy. Snow. Clear.
31	24	28	28	N. W.	Cloudy. Clear.

Total rain during the month - - - - - 1.50 inches.
Mean temperature - - - - - - 36.90° Fahr.
Decrease of heat from last month - - - 10.12°
Maximum - - - - - - - - 59°
Minimum - - - - - - - - 11°
Range of thermometer - - - - 48°

Hottest day, 8th.—Coldest day, 28th.

Comparison with December, 1825.

Mean temperature - - - - - - 1° greater this year.
Maximum - - - - - - - - 3° greater.
Minimum - - - - - - - - 1° less.

Result of all the Meteorological Observations made in Philadelphia and on Tinicum Island in the year 1826.

Months.	Thermometer. Mean Temperature.	Maximum.	Minimum.	Range of Thermom.	Hottest days.	Coldest days.	Number of Fair days.	Number of Cloudy days.	Depth of Rain.	Prevailing Winds.	Prevailing Weather of each month.
January	34.60°	54°	12°	42°	10th	31st	17	14	1 23-100	S. W., N. W.	Dry and moderate.
Feb.	37.60	63	11	52	25th	1st	12	16	2 41-100	N. W., S. W.	Moderate, dry and agreeable.
March	45.02	69	31	38	24th	17th	13	18	3 65-100	N. W., N. E.	Cloudy and cool.
April	50.52	75	31	44	18th	11th	11	19	2 79-100	S. W., N. W.	Cloudy, cool and unpleasant.
May	74.56	86	56	30	17th	9th, 10th	18	13	0 18-100	S. W., N. W.	Very warm, fair and dry.
June	72.17	87	59	28	11th	6th	14	16	4 96-100	S. W., N. E.	Cloudy, wet and favourable to vegetation.
July	86.43	86	67	19	13th	27th	25	6	4 75-100	N. W., S. W.	Fair, warm and moist.
August	75.57	86	66	20	20th	8th	14	17	3 21-100	N. E., S. W.	Cloudy and moderate.
Sept.	71.17	86	57	29	4th	25th	13	17	2 10-100	S. W., N. E.	Cloudy and temperate.
October	59.88	76	40	36	6th	25th	17	14	5 73-100	N. W., S. W.	Fair, wet and moderate.
Nov.	47.02	64	32	32	7th	19th	17	13	1 89-100	N. W., S. W.	Dry, pleasant and agreeable.
Dec.	36.90	59	11	48	8th	28th	15	16	1 50-100	N. W., S. W.	Variable, cold and dry.

Prevailing winds of the year, S. W., N. W.
Total rain of the year, 34 40-100 inches.
Hottest month, July.
Coldest month, February.
Greatest range of thermometer occurred in February, 52°.
The mercury was the highest June 11th, 87°—lowest, December 28th, and February 1st, 11°.
Thunder and lightning occurred in fourteen days.
Mean temperature of the year, 54.54°.
Mean temperature of 1825, 56.98°.
The temperature of the whole year was moderate, with the exception of May, which was remarkably hot and dry. An abundance of rain fell during the summer months, and vegetation of all kinds was very prolific.

MEDICAL LITERATURE.

ART. XV. *Memoir of the Life and Writings of the late* COLIN CHISHOLM, M. D., F. R. S. &c. &c. *formerly Inspector General of Ordnance Hospitals in the West Indies.**

A MILITARY life, under ordinary circumstances, seldom affords a favourable scope for the development of medical genius. The previous education, and peculiar habits of his profession, in some measure, unfit the medical officer for the passive duties of a subordinate sphere, whilst the various restraints and checks to which he becomes subject by the ungenial nature and undefined liabilities of military control, are so many discouragements to the acquirement of that elasticity and vigour of mind so essential to the improvement of the mental faculties. Notwithstanding these serious difficulties, added to those more immediately arising, in former days, from an imperfect organization of the medical department itself, and its undue estimation and respectibility in the service in regard to rank and emolument, both the army and navy have given birth to many whose genius, surmounting the ordinary disadvantages of their station, has raised them to the first rank in medicine and surgery: not to mention several living instances of men whose knowledge and experience render them ornaments to medical science.†

Dr. Colin Chisholm, the subject of the following biographical sketch, was also one of those who commenced his career in the service of his country. He was a native of Invernesshire, in the north-west part of Scotland, where he was born in the year 1755.

He received his classical education at Inverness, and at Aberdeen, and studied medicine and surgery at Edinburgh. At an early age he entered the army, having been appointed surgeon to a corps of Highlanders, in the year 1775. This corps, of which the late Dr. ROBERT JACKSON, the eminent writer on army diseases, was the then assistant surgeon, became afterwards the second battalion of the seventy-first, (Highland,) regiment, and, together with the forty-

* We are indebted for this communication to Professor Hosack.

† Among the former, it may be sufficient to instance the names of Wiseman, Pringle, Cleghorn, Monro, Brocklesby, Hunter, &c.

second regiment, being destined for actual service in North America, sailed from Greenock for that country, in April, 1776; the sick of both corps being placed under Dr. Chisholm's superintendance during the passage. He continued to serve with the seventy-first regiment, in different parts of America, during the whole of the revolutionary contest. When peace was concluded, in 1783, he was placed on half-pay, and settled as a physician at St. Georges, the capital of Grenada, in the West Indies. A few years after he had established himself here, and principally, it is supposed, through the interest of his friend the late Dr. JOHN ROLLO, he was appointed his successor as surgeon to the ordnance stationed in that island. In the summer of 1794, he returned to Britain, the first time since his settlement in the colony, and, in the course of that year, married Miss Eliza Cooper, an amiable young lady of Inverness. In the autumn of 1795, he had conferred upon him the rank of surgeon-general to the ordnance employed upon the expedition under the command of that lamented and gallant officer, the late General Sir RALPH ABERCROMBY, which sailed from Portsmouth for the West Indies, on the 15th November of that year; but which, from heavy storms, and consequent disasters, was unable to reach its destination till the spring of 1796, and then only with the loss of several transports, shipwrecked or driven back by the great inclemency of the weather, which lasted for many successive weeks. In the year 1797 he received the appointment of inspector-general of ordnance hospitals in the Windward Islands. In this capacity, it became his duty to visit in person and regulate all the artillery hospitals in the different islands; a tour which afforded him abundant and profitable opportunities for instituting medical and statistical observation, and inquiries in that country, on a scale, and to an extent, seldom enjoyed by a single individual.

When the intended object of this appointment appeared to have been fully accomplished, the board of ordnance were highly sensible of his merits, and as a flattering testimony of their full approbation of his services, permitted him, at his own request, to retire from the department, granting him what was at that *time* deemed a handsome allowance, namely, ten shillings per diem for life.

We have now arrived at a period which forms an important epoch in the professional life of Dr. Chisholm; we are next to consider him in the character of an author; but more particularly, as the founder and ardent supporter of particular medical opinions, and doctrines relative to contagion, which furnished a wide and fertile subject for inquiry and keen controversy, amongst a certain class of medical authors and practitioners for many years afterwards.

In the year 1794, that is, immediately or very soon after his return to England the first time, he published a book, in one volume octavo, entitled "An Essay on the Malignant Pestilential Fever introduced into the West Indies from Boullam on the Coast of Guinea, as it appeared in 1793 and 1794." In this work, and under the above title, the doctor characterized a fever which, about that period, prevailed in a great and fatal degree, especially amongst the troops, in almost all the British West India islands. This fever he unequivocally pronounced to be highly and specifically contagious; and affirmed to have been introduced, or imported, in the first instance, into Grenada, (where it proved very fatal to the inhabitants of the colony,) through the medium of a ship called the Hankey; which vessel arrived there from the coast of Guinea in Africa, in the month of February, 1793; and, moreover, that this fever was propagated from thence, as from a common centre, to the other islands of the West Indies.

Whether the fever in question, so ably described by Dr. Chisholm in that valuable publication, actually and essentially differed otherwise than in degree from aggravated forms of tropical, or what is usually, but vaguely denominated, yellow fever, which, it is well known, have, on different occasions, and under unfavourable circumstances, made great and extraordinary havoc in the islands of the Antilles; or whether it was, as the doctor asserted it to be, a specific contagion, a *nova pestis*, imported, in the manner before stated, it is not within the scope or design of this memoir to inquire; particularly after the volumes which have been written by both sides on this disputed point.

Non nostrum est inter *hos* tantas componere lites. It may be sufficient for us to observe, that the high professional reputation, and integrity of character, which the author had justly acquired and sustained, during his long residence in the West Indies, added to the sterling merits of the work itself, gave such decided weight, and authority to the opinions and doctrines therein promulgated, that at first few persons were to be found sufficiently competent or venturous to impugn them: and, in that quarter of the world, at least where their soundness or fallacy could be best appreciated, they appeared to have been received, for a very considerable time, with nearly universal consent.

In a second edition of the essay on malignant "Pestilential Fever," published in 1801, in two volumes, the doctor firmly adhering to his former opinions, widely extended the sphere of operation imputed to imported and specific febrile contagion; comprehending within its

vortex, and identifying the Boullam fever with the epidemic yellow fever which prevailed, with great fatality, about the autumn of 1793, and in subsequent years at Philadelphia, New York, and other places; and ascribing all those fevers to one common origin, namely, contagion, imported into, and communicated from the West Indies. The extension and devastating effects thus attributed to contagion, disseminated in such various and remote parts of the globe, may, in some measure, enable us to account for the accuracy of the doctor's hypothesis being questioned, and from the increasing opposition which his doctrine met with, and to which he indeed alludes in the same edition of his essay, for it may reasonably be supposed that some persons who had become willing converts at first, and, to a certain degree, implicitly bowed to his opinions as to the existence of incidental contagion; but who were not prepared to go so far as doctor Chisholm in ascribing to it a contagious quality of a specific nature, and far less in identifying it with destructive fevers which prevailed in other, and such very distant regions of the earth.

Some of the army medical officers, serving at that period in the West Indies, had, it seems, already doubted the soundness of his opinions; but it does not appear that his doctrines had as yet met with any serious or direct opposition through the medium of the press, until the year 1807, when Drs. Miller and Smith of New York, the former gentleman being the editor of the New York Medical Repository, publicly entered the lists of opposition in an official report addressed to the governors of the state of New York. In 1811 Dr. Edward Nathaniel Bancroft, physician to the forces, an able and ample writer upon the same side, and by far his most powerful antagonist, may be said to have embodied every argument that would bear upon the question. On the other hand Dr. Chisholm, supported and strengthened by the testimony and conviction of professional men of unquestioned eminence, published an animated reply to his opponents, in order, as he states, "to correct the pernicious doctrines promulgated by Dr. Edward Miller, and other American physicians." This reply appeared in 1809, in an octavo volume, under the title of "A Letter to John Haygarth, M. D., F. R. S. &c." In 1813 Dr. Chisholm also wrote a very spirited answer to the remarks of Dr. Bancroft, which appeared in the Edinburgh Medical Journal, for October, 1813.

This important controversy, involving in its progress many men of distinguished talents on both sides, and pervading almost every quarter of the world, was maintained with all the zeal and ardour

which its importance warranted, and which is usually manifested by its warmest partizan.

Polemical writings, however unpleasing to the disputants, if conducted with perfect candour and dignity, are undoubtedly instrumental to the advancement of knowledge,* important facts, and new lights are often elicited by the controversialists, in support or refutation of their respective hypotheses; so that the calm and dispassionate inquirer, by reasoning upon, examining, and comparing the facts and legitimate arguments propounded by each party, has a better chance of discovering the truth, and forming a right judgment, than a person who should come to the inquiry with a mind previously made up, or at least tinctured with the tenets and dogmas of party. On a point of such importance to the health, and safety of the human race, and to the commercial and political interests of the community, this eager controversy was of no small advantage; and, although the points at issue among the disputants for so many years, have not been so satisfactorily accorded as could be desired, yet the acrimony of the contest is worn off, and this once intricate, and much agitated question, has been so much narrowed, that its discussion has been productive of considerable benefit, not only to the profession, but to the human race.

After his return from the West Indies, Dr. Chisholm resided chiefly at Bristol, or Clifton, where his talents as a physician, we understand, were highly estimated. His time was in a great measure divided between his professional pursuits and writing contributions to medical science; the latter, (some of which are very valuable,) were, for the most part, published in the form of essays in the Edinburgh Medical Journal, one of the oldest and most respectable periodical publications in Europe, and edited by his friend Dr. Duncan. A list of his writings is annexed to this memoir. In the year 1819 Dr. Chisholm went over to Switzerland for the better education of his children, and resided mostly at Geneva. During the leisure afforded by this Alpine retirement, he wrote, and bequeathed to his surviving professional brethren his last essay, entitled "A Manual of the Climate and Diseases of Tropical Countries, &c." Of this work, which is chiefly intended for young tropical practitioners, and which was avowedly undertaken at the desire of, and is dedicated to his old and esteemed friend, Sir James M'Grigor, director-general of

* Truth results from discussion and from controversy.—*Paley's Mor. and Polit. Philos. Vol. II. p.* 346.

the army medical department; himself a valuable contributor and benefactor to medical science and improvements; of this work, whether we regard its intrinsic merits, or its practical utility, it is impossible to speak in terms of too high commendation. After the completion of this work, Dr. Chisholm made a tour through Switzerland and Italy, and returned to England in May, 1824. He had been for some time suffering under a painful malady, of which he died on the 2d of February, 1825, in the 69th year of his age, at old Burlington street, London.

On a review of the writings of Dr. Chisholm, it will be allowed that his talents, both as a physician and as an author, were of a superior order. Altogether he must be regarded as a man of no ordinary science. To the possession of great industry, a mind ardent and enlightened, he added literary and philosophical acquirements, in a very considerable degree. His writings are distinguished by a style, at once perspicuous, classical, and nervous; characterized, at the same time, by a warmth and earnestness of language, certainly not always conciliatory in his controversial essays, and which convey an appearance of acerbity, particularly to those persons whose opinions it was his object to combat. In controversies not governed by the rules of strict impartiality, it is too often the practice of the disputants, to suppress, garble, or overlook facts and circumstances which militate against their own opinions; to permit their passions to have a share in the question; to be over-strenuous in their own cause; more ready and anxious to impute error to their opponents than to acknowledge it in themselves, and search after truth purely for its own sake. In regard to the controversy in which Dr. Chisholm was involved, we may observe, that, when carried away by his earnestness in maintaining his tenets, the manner of reasoning which he adopted was not always the best calculated to propitiate and convince his opponents; yet his arguments were the result of conviction, expressed with an honest and manly freedom, and dictated by a mind zealously directed to the cause which it was his grand object to defend.

His professional knowledge and experience we have already said was highly appreciated in the West Indies, and he doubtless is entitled to the meed of praise for his meritorious labours in the field of medical science. He was the first to recommend and inculcate a more liberal employment of mercurials, and of introducing an improved and more decided line of treatment in the fevers of that country—a practice that had, to a great degree, obtained, and been found successful in the same class of diseases in India.

With respect to his medical doctrines it may be said, that if uniform and consistent faith, entertained for a long course of years; if sincerity, uprightness of intention, and moral excellence, give an additional portion of weight and validity to his opinions, Dr. Chisholm, to the day of his death, steadfastly adhered to, and most conscientiously believed in all he had written upon the subject of contagion, while the correctness of his pathological and therepeutical views on febrile diseases, was confirmed and exemplified by the success of his subsequent practice.

"In private life, Dr. Chisholm," to use the words of a dear and very intimate friend, "was most amiable, and for the world, too much devoid 'of guile;' in the relations of husband and parent, 'affectionate and indulgent.'"

Dr. Chisholm enjoyed the friendship and correspondence of several eminent men. He was one of the oldest Fellows of the Royal Society, a member of the Wernerian Society of Edinburgh, of the Philosophical, Medical, and Natural History Societies of New York and Philadelphia; of the Physical and Natural History Society of Geneva; and of the Helvetic Society, for promoting the science of Switzerland.

It is understood that Dr. Chisholm has left a valuable MS. on the medical topography of the countries he visited on the continent, which it is hoped will be given to the world.

Whatever professional opponents Dr. Chisholm may have unfortunately left behind him, it is certain that he himself died in Christian charity and good will to all. It is not perhaps possible to produce a more affecting, pious, and sincere valedictory address, nor one more calculated to disarm hostility, than that which, in reference to medical controversy, he makes to his professional brethren in his last publication, the "Manual of Tropical Diseases," with a short extract from which we shall conclude this sketch. "If ever," says the truly benevolent author, "any remark, or any language of mine have given pain or offence; if ever I have betrayed animosity in the maintenance of my own, or asperity in the consideration of another's opinion; fully aware of the absurdity of a conduct, which the frailty of human nature, and the limited knowledge and capacity of man can give no sanction to, I here solemnly abjure, and intreat pardon for."*

* Manual of Tropical Diseases, p. 233.

A List of the Publications and Writings of the late Dr. Chisholm, as far as they are known to the Author of the foregoing Memoir.

PUBLICATIONS.

1. An Essay on the Malignant Pestilential Fever introduced into the West India Islands, from Boullam on the Coast of Guinea, as it appeared in 1793 and 1794. 8vo. 1794.

2. A second edition, greatly enlarged, of the same work. In 2 vols. 8vo. 1801.

3. A Letter to John Haygarth, M. D., F. R. S. Lond. and Edin. &c. from Colin Chisholm, M. D., F. R. S. Author of an Essay on the Pestilential Fever, exhibiting farther Evidence of the Infectious nature of this Fatal Distemper in Grenada, during 1793–4–5–6, and in the United States of America, from 1793 to 1805, in order to correct the pernicious doctrines promulgated by Dr. Edward Miller, and other American Physicians, relative to this destructive Pestilence. In 1 vol. 8vo. 1809.

4. A Manual of the Climate and Diseases of Tropical Countries, in which a Practical View of the Statistical Pathology, and of the History and Treatment of the Diseases of those Countries is attempted to be given. Calculated chiefly as a Guide to the young Medical Practitioner, on his first visiting those countries. 1 vol. 8vo. 1822.

ESSAYS OR PAPERS.

In the Edinburgh Medical and Surgical Journal.

1. History of a Singular Affection of the Liver, which prevailed epidemically in some parts of the West Indies, Anno. 1786.

2. Observations on the Influenza, as it lately appeared in the West Indies. 1790.

3. History of an uncommon Epidemic Fever observed in the Island of Grenada. 1793.

4. Remarks on the Bignonia Ophthalmia, or Eye Root. 1794.

5. Cases of Yaws and Leprosy treated with Nitrous Acid and Oxygenated Muriate of Potash. 1800.

6. Curious Case of Spasmodic Affection of the Face, cured by the Oxygenated Muriate of Potash. 1800.

7. A short account of the Epidemic Polypus of Grenada, in 1790.

8. On the Poison of Fish. 1808.

9. Case in which the Cæsarian Operation was successfully performed, twice on the same woman. 1808.

10. On the Lues Bovina Intertropia. 1810.

11. An Essay towards an Inquiry how far the Effluvia from Dead

Bodies passing through the natural Process of Putrefaction, are efficient in the production of Malignant Pestilential Fevers. 1810.

12. Case of Ruptured Spleen and Liver by External Injury, with Remarks. 1811.

13. Letter on the Yellow Fever at Perth Amboy, with a Report of the Board of Health at New York on Yellow Fever. 1812.

14. Observations on some Remarks of Dr. Bancroft, contained in the Seventh Appendix to his Essay on the Disease called Yellow Fever; together with Additional Testimonies.

15. Remarks on Contagious Fevers. 1814.

16. On the Malis Dracunculus, or Guinea Worm. 1815.

17. On the Statistical Pathology of Bristol and Clifton, Gloucestershire. 1817.

In the Medico-Chirurgical Transactions of London, Vol. IV.

Remarks on the Use of Mercury in severe Affections of the Brain. 1813.

In the New York Medical and Philosophical Register.

1. Observations on Arsenic and Muriate of Lime in the treatment of Scrofula.

2. On the Oil of Turpentine.

3. On Contagious Diseases.

4. On the Varieties of the Human Species.

5. Account of a Nation of Pigmies.

In the New York Medical Repository.

An Account of the Cachexia Africana.

REVIEW.

ART. XVI. *Recherches Anatomiques, Pathologiques et Thérapeutiques sur la Maladie connue sous les noms de Gastro-entérite, Fievre Putride, Adynamique, Ataxique, Typhoid, etc. etc. Comparée avec les Maladies Aigues les plus Ordinaires.* Par P. CH. A. LOUIS, Docteur en Medicine des Facultés de Paris et de St. Petersbourg, Membre de l'Académie Royale de Médecine, Correspondant de l'Académie Imperiale Medico-Chirurgicale de St. Petersbourg, de celle de Marseille, chef de Clinique de la Faculté de Médecine de Paris, etc. etc. Two vols. oct. pp. 989. Paris, 1829.

THE nineteenth century, so far as it has elapsed, forms a brilliant era in the history of medical science. In the wide range of twenty centuries, which exact history claims as her own, we here and there may mark the recorded labours of a great and distinguished genius, which shine with redoubled splendour amid the surrounding darkness; and we may also notice occasional groups of distinguished cotemporaries improving and adorning the respective ages in which they flourished. It was, however, reserved for the present era, by an unanimity of co-operation unexampled in past ages, to place medical science upon the firm bases of correct observation, critical research, and strict philosophical deduction—to discard all idle speculation and vain hypotheses, and by endowing it with the attributes of an exact science, to render utterly inapplicable to it, at no very distant period, the opprobrious epithet of *ars conjecturalis.*

This prosperous state of the science, brightened by such anticipations of prospective improvement, may be ascribed, mainly, to the splendid, useful, and imperishable accessions which have been afforded to it by the genius and industry of BICHAT and his eléves. The views of Bichat necessarily opened a large and unexplored field for pathological researches. His Anatomie General must be adopted as the foundation of all correct pathological investigation, and the impulse which his researches and example have given to the medical inquiries of the present age, cannot but be attended with the happiest results, when the present *system of physiological medicine* shall have become better understood and more extensively adopted. Notwithstanding the difficulties which physiological medicine has to contend

with, arising from the inveterate habits, and accumulated prejudice of centuries, yet it, nevertheless, has made steady and rapid advances, and we are almost daily called upon to present to our readers brief notices of some of the more important works, expressly devoted to this subject, which are crowding upon us with irresistible claims to attention.

The work, whose title is prefixed to this article, bears a deep impress of the character of the medical philosophy of the present time. Its author is well known to the medical profession, and has acquired considerable, and justly deserved celebrity, by his able and extensive anatomico-pathological researches, on the softening with thinning, and the destruction of the mucous coat of the stomach; on hypertrophy of the muscular coat of the stomach in cancer of the pylorus; on perforation of the small intestines; on croup in adults; on pericarditis and various other morbid affections; and by his elaborate and ingenious treatise on phthisis pulmonalis. The work under review is calculated to add, in no inconsiderable degree, to his well-earned reputation. It displays a zeal and devotedness for the improvement of the profession, an exactness of observation and talent for analysis and arrangement, calculated to demand our warmest approbation. It embraces, in two octavo volumes, between 900 and 1000 pages, and is divided into four parts. *The first part* is devoted to the history of eighteen fatal cases of typhus fever, in which the symptoms of the disease, and the morbid lesions are equally well developed.

In the second part we have presented to us a general description of the lesions, or morbid anatomical changes, both among subjects who have died of this disease, and among others who have sunk under other acute affections; with an exposition of the principal causes of death in these two classes; terminated by a rapid sketch of all the changes successively described.

The third part contains, in so many distinct chapters, the history of the symptoms in those who have died, and those who have recovered; that is to say, a distinct chapter for each respective symptom; the diagnostic indications; observations relative to subjects in whom the typhus affection was latent; those in whom its anatomical characters were slightly developed; and others who experienced the greater part of the symptoms characteristic of this disease without being really affected.

The fourth part presents an analysis of the facts relative to the action of blood-letting, to tonics, to blisters, the application of ice to the head, and terminates by an exposition of the principal rules for the treatment.

Such being a brief summary of the primary divisions of the work, we will present a little more particularly, but at the same time very briefly, the contents of these respective portions.

The first division of this treatise embraces one hundred and fifty-seven pages, and is devoted exclusively, as has been already remarked, to the recital of eighteen cases of typhus fever, arranged into three groups according to the respective periods of their fatal termination. The first chapter contains the history of seven patients who died from the sixteenth to the thirtieth day of the disease; the second chapter contains the histories of six cases, which terminated fatally from the eighth to the twelfth day; the third chapter contains the histories of five cases, in which death did not occur until after the thirtieth day.

By this arrangement, the author is enabled not only to present the various symptoms which indicate this disease in its acute as well as more protracted forms, but also to mark the numerous and diversified lesions and their respective correspondence with the previous symptoms and their duration.

With the view of bringing distinctly before the reader the disease under consideration, we shall invert in some measure the order pursued in the work itself, and present, previously to the anatomical characters of the affection, a summary and collected view of its various symptoms which the author has prefixed to the more enlarged and particular consideration of each respective symptom.

1*st. Symptoms observed in those who Sunk under the Disease.*—The subjects of this affection were young, from seventeen to thirty years of age, the medium term twenty-three years, none exceeding forty years. Almost all, previously to the attack, were habitually in good health, of constitutions sufficiently vigorous, moderately corpulent, and had resided at Paris for a short time only. At the period of the attack, they were placed under various circumstances; some had been accustomed to excessive labour, the most part to moderate exertions: a portion had suffered for some time from anxiety and mortification; the most part felicitated themselves on being at Paris, and enjoying better nourishment than they had heretofore partaken of; and, with scarcely any exception, they had not suffered from privations of any kind.

The disease commenced at different periods of the day, generally in the morning; ordinarily with decided violence, by chills accompanied with trembling, head-ache, universal lassitude, anorexia, thirst, some pains of the abdomen, and in a majority of the cases liquid stools were superadded to these symptoms during the first twenty-four

hours. Heat succeeded to the chills, which were renewed for many days in succession among almost all subjects, ordinarily in the evening, or at bed-time. Afterwards the heat was permanent, more or less intense, and almost always dry.

These symptoms, which had nothing characteristic, and only indicated that the affection had its seat in the abdomen, presented in the following manner:—

The patients experienced a feebleness, little proportioned to the other symptoms and the apparent severity of the affection; the dizziness was such as either to confine them to their seats or prevent their walking when erect; they were affected with somnolency, at first in a very slight degree, very soon to a considerable extent, so much so that they immediately fell into this state when no longer interrogated. The memory, although ordinarily sufficiently correct, was slow; there was great repugnance to the exercise of the intellectual faculties, indifference to passing occurrences, and almost always such disregard to their own situation, that many of those who had involuntary stools did not ask to be cleansed. Although in a state of continued drowsiness, they complained of not sleeping, or of having but a fatiguing sleep, disturbed by reveries, which they endeavoured in vain to resist. Delirium was combined, in many cases with the somnolency; the first very rarely commencing until two, three, five, or six days or more after the other. The delirium was sometimes slight, only existing during the night; sometimes a little more marked and almost continued; sometimes the patients were excited in so furious a manner that they were obliged to be restrained in their beds with force. The somnolency continued until the fatal period, with the exception of some cases in which the affection was considerably protracted. Tinnitus aurium occurred in a considerable number of cases, united, occasionally with some hardness of hearing, which commenced a little later than the tinnitus, augmenting by degrees, and becoming in some cases so extreme as to amount to entire deafness.

The eyes were injected, more or less sharp or piercing, sometimes of an uniform rose tint, very rarely, however, from the beginning. The vision in some cases was confused, objects appearing as if surrounded by a thick cloud, although the atmosphere was transparent. A slight strabismus occurred in one case. Many patients had hæmorrhages from the nose, from which they did not experience any relief.

The most part of the cases presented on the surface of the body an eruption of lenticular rose-coloured spots, more or less approximated to each other, ordinarily towards the tenth day of the affection, rarely at the seventh, never before; and this eruption did not vary less in

its duration than in its quantity. Sudamina was very frequently united to this eruption.

The abdomen was tympanitic, preserving very rarely to the close of the disease its natural size and form. The tympanitis in some subjects always remained inconsiderable, while in others it became progressively more marked, increasing in such a manner, among a certain number, that the summit of the abdomen surpassed in elevation the level of the chest.

During the period of the existence of these three orders of symptoms, all more or less characteristic, the diarrhœa developed itself, ordinarily increasing as the disease progressed; the stools becoming involuntary notwithstanding the delirium was considerable, and in some cases the fecal evacuations were united with a considerable quantity of blood. The tongue, which, in a considerable number of cases did not present any thing remarkable, was ordinarily clammy or dry; sometimes brown or red, encrusted or clean, chopped or sound, blackish in some patients, more or less thick in others. In many cases it could not be protruded out of the mouth but with difficulty and trembling, and after protrusion it was suffered to remain between the teeth, the patient apparently forgetting to retract it. The deglutition was sometimes difficult: the pharynx more or less inflamed. Some complained of pains at the epigastrium, and nausea; a considerable number were seized with vomitings, which occurred, ordinarily, in the last stage of the affection.

The debility became each day more marked, the patients trembled when standing, having the walk of intoxicated persons, and even complained sometimes of being so. The debility increasing, they could with difficulty assist themselves, and very soon became, in a great measure, helpless, passing all, or the greater part of the day, in the same position, ordinarily on the back, resembling as it were inert bodies. In this state the integuments which covered the sacrum became red, excoriated, and were more or less promptly attacked with gangrene. The blistered surfaces, which were covered with pus of a bad quality, presented a livid colour; and, in some cases, ulcerations, and even a complete destruction of the skin to an extent more or less considerable.

The heat was dry, ordinarily very elevated; chills did not occur except in some rare cases, and indicated the commencement of some secondary lesion, erysipelas for example. The pulse continued greatly accelerated, beating one hundred strokes or more in the minute, very rarely less; loosing its size which it had in the greater number of subjects in the beginning, becoming small, feeble, hard, and ir-

regular; while in some it preserved a certain magnitude even until death.

The cough which existed in the greater number of cases was rarely inconvenient, almost always accompanied by a universal, sonorous *râle*, to which was united in some individuals towards the close of the affection, a little of the crepitant râle; the sole sign of an inflammation of the parenchyma of the lungs, ordinarily, but little extended.

The successive changes effected in the physiognomy were remarkable. Bloated and violacious at the commencement of the disease in a large number of subjects, the countenance lost by degrees this character, and became, if we may so express it, without animation, succeeded by indications of prostration, stupor, or indifference; and, in some, by a profound pre-occupation or reverie, and again by furor or wandering, resembling a species of delirium. In some cases the countenance was expressive of pain; in others were observed spasmodic movements of the lips, zygomatic muscles, or those of the lower jaw, or a permanent contraction of the pupils. These spasms, sometimes, were of considerble duration, existing also in other parts of the body to such an extent, that frequently twitching of the tendons, very marked spasmodic movements of the superior extremities, and often a permanent contraction of the same parts, and of the muscles of the neck, took place. Death finally supervened, ushered in either by delirium or a deceptive calm, the patients only loosing their consciousness a few hours previously. Death, however, occurred sometimes in a very unexpected manner. Very frequently it took place from secondary lesions, or was precipitated by perforations of the small intestines, which almost constantly give rise to the symptoms of intense peritonitis. Such was the progress of the disease in the greater number of cases. In others this progress presented remarkable modifications, either in the commencement, or during the course of the affection. Thus, many patients only experienced, during a space of time of some duration, a simple febrile excitement, great heat, intense thirst, little drowsiness, some vertigo, partial loss of appetite, and a moderate degree of feebleness, without pains of the abdomen, without diarrhœa, or without any symptom which indicated, in a definite manner, the seat of the disease. Some cases even, (three,) had not a looseness; and it was not until five, six, or eight days had elapsed, sometimes a little more or less, that pains of the abdomen and diarrhœa occurred in others, after which the affection pursued its accustomed course.

In some cases the fever, after having commenced with great ap-

parent vigour, diminished; the feebleness was inconsiderable, the characteristic symptoms not present, the affection appeared slight, and the patient seemed from the first attack to have rather a simple gastric derangement than any other disease. This was the latent form; of which the diagnostic indications remained uncertain even till death, or to the moment when the perforation of the intestine removed all doubts. The most usual external characters, the physiognomical changes, for example, were altered also in some cases, by the intensity of many of the symptoms. Sometimes, in fact, the diarrhœa and the tympanites; sometimes the stupor, delirium, and every species of spasmodic symptoms; and accordingly as one or the other of these states prevailed, the disease assumed the appearance of a putrid or ataxic fever; sometimes, also, it assumed the form of an inflammatory fever in patients in whom the pulse was large, and the integuments had become injected in the early stage of the disease.

In some individuals the drowsiness predominated, continuing without the slightest interruption, with a freedom from delirium, or a very little of it subsequently, and, notwithstanding the most severe lesions, the calm continued even till death.

Notwithstanding these different aspects, the affection was always the same, the fundamental disorder did not change. On dissection there was invariably found a lesion, more or less severe, of the elliptical* plates of the small intestine, profoundly altered in proportion

* The reader will probably understand what the author means by the elliptical plates, (plaques elliptical,) of the ilium, from the following remarks on the subject, extracted from the author's treatise on phthisis:—

"The mucous membrane of the small intestines is naturally white; its thickness a little more considerable in the jejunum than in the ilium.

"If, after having made an incision in it, we raise the edge of it with the scalpel, and seize it with the extremity of the fingers, or forceps, we can elevate the laminæ of it from five to six lines in length.

"This experiment suffices to indicate the consistence of the mucous membrane in its natural state; and when we cannot obtain, in this manner, laminæ of the size indicated, we must conclude, that there is a lesion of it more or less profound.

"But the uniformity of this membrane is interrupted at distances more or less considerable by oval plates, of very various dimensions. We observe them in the three last fourths, sometimes in the whole extent of the intestine. From twenty to thirty, and sometimes more of them are observed. Placed opposite to the mesentery, they are from a quarter of an inch in width to eight or ten lines in length; becoming more numerous and larger as they approach the cœcum; forming an inconsiderable elevation, sensible, nevertheless, to the sight and touch; having a thickness double, triple,

as the plates were situated proximately or remotely in relation to the ileo-cœcal valve, presenting appearances very remarkable, according to the duration of the disease, accompanied by an analogous alteration of the corresponding mesenteric glands.

The other organs, frequently, were far from being in a natural state; but their lesions were not constantly present, and only differed, slightly, from those lesions which we observe in subjects who have sunk under other acute diseases. In the chapter on diagnostic indications, the reader will be enabled to see how it is possible to avoid the errors into which a superficial observer may be drawn inadvertently, in a case where the character of the disease is widely different from that which it was wont usually to present.

The duration of the disease varied from eight to forty days, and beyond that period. The different stages were almost confounded in those individuals who sunk so early as from the eight to the twelfth day of the affection. In a certain number of cases the characteristic symptoms ceased some time before death; in these instances the disease was considerably protracted, and it was then, especially, that the fatal termination evidently resulted from some accessory lesions.

2d. *Symptoms in those who Recovered.*—Among those in whom the affection was severe, (fifty-seven,) the symptoms, except the permanent contraction of the muscles, which was wanting, were the same as in those cases which had a fatal termination, with the exception of being a little less intense. Thus, in this, as in the preceding class or fatal cases, the diarrhœa and abdominal pains, though in a rather less proportion, commenced in the greater number with the first attack of the disease, and when this was not the case they were a little more tardy in their appearance than in the analogous fatal cases. The diagnostic indications were uncertain, and its seat undetermined, during a space of time more or less considerable, in some subjects; and in others, the predomi-

or quadruple, that of the surrounding mucous membrane; they are completely opaque, of a white or grayish colour, and sometimes dotted with blue. They have not the velvet aspect of the rest of the intestine. Their surface presents a great number of grains, much smaller than those of millet, white, or a little yellowish.

"If we elevate them in the manner indicated above for the mucous membrane, we observe on their adherent surface the same granular appearance; and if we place one of these plates thus detached between the eye and the light, the interstices of the small grains appear thin and semitransparent, very similar to the mucous membrane in the rest of its extent."

nance of certain symptoms more or less altered the habitual character of the affection, in such a manner as to give it the forms of putrid, ataxic, or inflammatory fevers. Whatever form it assumed, however, after from fifteen to fifty days from the commencement of the disease, and beyond that, according to the rapidity or tardiness of the affection, the more severe and characteristic symptoms, the drowsiness, delirium, and meteorism diminished and soon ceased entirely; the number of stools were less considerable; the thirst was less intense; the tongue freed itself from its more or less brownish crust, with which it was frequently covered; the pultaceous plates which it presented in some cases ceased to be reproduced, and it approached more or less to its natural state; the physiognomy became more natural; the patients began to be interested with things around them, demanded food, appearing as it were to be re-entering life, a kind of resurrection extremely remarkable in some cases in which the convalescence had been very rapid; the heat diminished; the pulse less accelerated; and, in fine, all the functions gradually returned to their natural state.

Some of the functions, however, were re-established much more slowly than others, in many individuals, and their convalescence was accordingly retarded; the heat was more or less intense, the pulse continued more or less accelerated, and the looseness remained without its being ascribable to any errors in diet. A small number of patients, during convalescence, had copious and universal sweats during the night, while the other functions, on the contrary, and particularly digestion, were in a natural state. These sweats resisted equally tonics or stimulants, the infusion of cinchona and the infusion of mint, and disappeared very slowly, only, after ten or fifteen days duration.

The blistered surfaces and the ulcers which succeeded to the eschars of the sacrum, cicatrized slowly in some cases, and formed a new obstacle to the complete re-establishment of the organic forces.

The heat, the acceleration of the pulse, and the diarrhœa displayed the most obstinacy generally in those patients whose symptoms were most severe, and longest continued, which is readily to be accounted for; the severity of the symptoms indicating that of the lesions, and these disappeared more slowly in proportion to their magnitude and severity.

The emaciation, which in some cases was considerable, disappeared proportionately slower, when the digestive functions were only partially re-established at the commencement of convalescence, which occurred from the eighteenth to the eightieth day and beyond

that.* This extreme difference depended in some subjects, as has already been observed, less on the development of some secondary lesions, more or less severe, in the course of the affection, than on the extreme slowness of its progress in the first period.

In those cases in which the affection was slight, the diarrhœa was not so protracted nor severe, the cerebral symptoms less frequent, less violent, and of shorter duration than in the others, and the same remarks were alike applicable to the state of tympanites.

The mean duration of the disease, however, was not very variable. It was twenty-eight and one-third days in those cases which proved fatal, and thirty-two days in those which recovered. What indicated sufficiently that the affection was developed extremely slowly in some cases, was the circumstance that during three, four, and more weeks, which preceded the entrance of a certain number of patients into the hospital, subsequent to their being attacked with the disease, they only experienced slight symptoms, such as mild diarrhœa and a moderate diminution of the strength and appetite. These symptoms continued also, in the same manner, for some time after their admission, to which were subsequently superadded a slight state of tympanites, delirium, drowsiness, reddish lenticular spots or sudamina, which indicated decidedly the true cause of the first or accidental symptoms, which it was impossible to have associated with any other lesion than that of the elliptical plates of the ileum.

The spasmodic rigidity of the limbs and of the pupils did not take place, as has been already noticed, in any of the cases which had a happy termination. The pulse was generally less accelerated and larger in these cases than in the others. The medium age of those patients who recovered was twenty-one years, that of those who died twenty-three years. The medium period of the residence of the first at Paris, was fourteen months, of the second eleven months. Thus it would appear that the prognosis of the typhus affection ought to be less discouraging, generally, in subjects very young; in those in whom the pulse was moderately accelerated and large, and in those who had resided at Paris for more than a year, than in those under contrary circumstances. It should always be remembered, nevertheless, that typhus fever, however benign its appearance may seem, is always a formidable disease; in regard to which we should ever apprehend danger, even in cases where the symptoms are very light, as well as those in which they are severe; for we know not at what mo-

* The period of convalescence the author dates from the time when the patients began to desire and eat a little bread.

ment perforation of the ileum may take place. The prognosis ought, therefore, never to be pronounced, positively, favourable in this disease, in respect to the fate of which we cannot be certainly assured until convalescence has assumed a decided character.

After this general, but summary history of the disease, the author enters into all the circumstances connected with each symptom, and endeavours especially to determine with precision the period of its commencement, its duration, its intensity, its connexion with the lesions which correspond with it in those cases which terminated fatally, its existence or non-existence in other acute diseases, not typhus, and its relative character in the latter, both as respects cases which have proved fatal and those which have recovered.

The several symptoms thus treated of individually, and at large, are—

1st. Diarrhœa. 2d. Pains of the abdomen. 3d. Meteorism. 4th. Gastric symptoms. 5th. State of the tongue, mouth, and fauces. 6th. Deglutition. 7th Cerebral symptoms; *a.* cephalalgia; *b.* somnolency; *c.* delirium; *d.* spasms; *e.* state of the powers of the system; *f.* pains and œdema of the limbs. 8th. Symptoms furnished by the organs of the senses; *a.* epistaxis; *b.* state of the eyes; *c.* of the ears; *α.* deafness; *β.* tennitus aurium; *γ.* pains; *δ.* inflammation of the external meatus. 9th. Of the skin; *a.* lenticular rose-coloured spots; *b.* sudamina; *c.* erysipelas; *d.* various eruptions. 10th. Of the febrile symptoms properly so called; *a.* chills; *b.* heats and sweats; *c.* pulse. 11th. Respiration. 12th. Of the symptoms connected with the intermittent form of the disease. 13th. Of the state of the blood drawn from the veins during life.

To this important part of the work, illustrated and confirmed by the recital of several highly interesting cases, the author has appropriated about three hundred pages.

In order that the reader may form a correct idea of the precise, elaborate, and ample manner in which this part of the work has been executed, we shall present in full the author's observations under the head of *Diarrhœa.*

"I. *In subjects who died of the typhus affection.*—This symptom was only wanting in three cases. It varied in the others relatively, to its commencement, its degree, the nature of the excretions, and its seat, which was sometimes more or less extensive.

"1st. *Of its commencement.*—In forty subjects, of whom the author was enabled to obtain precise information relative to this point, twenty-two had stools more or less numerous and liquid from the first day of the disease. In fifteen other subjects, the diarrhœa appeared in nine from the third to the ninth day of the affection, and in six from the eleventh to the fourteenth. From the com-

mencement of the disease up to these respective period, the stools had been either regular or costive, and ordinarily solicited by injections.

"The three subjects who were exempt from diarrhœa, died on the thirteenth and fourteenth days of the disease, which would lead us to conclude, that the presence of diarrhœa was not the principal cause of the more or less prompt fatal termination of the affection, in those cases in which it had prevailed.

"The same inference was deducible also from the proportion of the cases in which the diarrhœa commenced on the first day of the affection, compared with other cases, when arranged in accordance with the principal groups of subjects. These cases were distributed in the following order:—Three out of eight subjects of the first series—one out of four of the second series—eleven out of twenty of the third series—seven out of nine of the fourth series.*

"It is proper also to remark, that among the subjects who died from the twentieth to the thirtieth day of the disease, four laboured under diarrhœa, for twelve, forty days, and five months previously to the commencement of the typhus affection, and it was not deemed proper to revert to the consideration of this epoch in describing the development of the disease, because there was no other indication of the typhus affection present, and the elliptical plates of the ileum did not at the time of death exhibit any of the characters, which they ought to have presented, very probably at least, had the diarrhœa been the effect of their alteration at its commencement.

"2d. *Of the degree.*—The diarrhœa was excessive, moderate or slight, varying according to circumstances. Excessive in eighteen out of thirty-two subjects, in which its degree was ascertained with exactness, who had from eight to ten stools or more daily: moderate in seven who went to the chamber from four to six times in the twenty-four hours: slight in an equal number who had only one or two alvine evacuations during the day, rarely more.

The cases of excessive diarrhœa were distributed in the following manner:—One out of three subjects of the first series—one out of two of the second series—eleven out of eighteen of the third series—five out of nine of the fourth series. So that if the commencement of the diarrhœa coincided with that of the affection, more frequently in subjects who died after the twentieth day, than in those who succumbed before this period, its degree was also more considerable frequently, in the first, than in the second.

"Whether the diarrhœa was excessive or slight, and commenced or not with the commencement of the disease, it did not pursue its course always in the same degree; but presented, in a certain number of cases, variations in its progress.

"In seventeen cases it was almost uniform, or augmented successively, and became finally stationary. In seven out of the other fifteen cases, it diminished in the second part of its duration, or in the seven or eight last days of the affection. In four patients, on the contrary, it augmented considerably in the last

---

* "The above arrangement or classification of cases is founded upon the following principle. The subjects of the first series died from the eighth to the fifteenth day of the disease; those of the second from the fifteenth to the twentieth; those of the third from the twentieth to the thirtieth; and those of the fourth beyond the last named period."

stage of the disease. In the four last cases its progress presented nothing decisive; it was incessantly varying.

"3d. *Of the nature of the evacuations.*—The fæcal matters, ordinarily very thin, formed with the urine a more or less turbid liquid, at the bottom of which could be discovered á number of small yellow particles; *rarely*, some portions more or less solid, in the cases where death did not take place, subsequent to the thirtieth day of the disease. In place of the yellow colour, which was the most ordinary, the fæcal matters, occasionally, had a brownish tint, similar to that of the grounds of coffee, of which it presented the consistence in two subjects, who died on the twenty-third and twenty-ninth days of the affection, (cases 24 and 29.) Two others, passed for a short time, a quantity more or less considerable, of pure blood."

And although the author examined, in a very large majority of the cases, which examinations were frequently repeated in each case, the alvine evacuations, he did not find in them the least mucus, except in four individuals. This doubtless, does not surprise us much, when we recollect how very rare it is to meet with mucus in the large intestines, in post mortem examinations.

"The cases where the fæcal matters were mixed with pure blood, and those where they had the aspect and consistency of the grounds of coffee, are deserving of attention in this respect, that evacuations of this nature scarcely ever take place in the course of acute diseases, distinct from the typhus affection, and that, in doubtful cases, they constitute an important diagnostic indication.

"The lesions of both the large and small intestines did not present, besides, any thing remarkable in these four cases, from many others where the fæcal matters exhibited nothing extraordinary.

"4th. *The relation of the diarrhœa with the state of the intestine.*—This relation was not always the same, because the alteration of the mucous membrane of the intestine extended itself more or less rapidly from the period of attack. At this epoch, in fact, the elliptical plates of the ileum, if not in all, at least in almost all the cases, were the only parts of the intestinal canal affected, and consequently the only parts to which could be attributed the looseness. And although, at a period more or less remote from the commencement of the affection, the mucous membrane, intermediate to the plates, and that of the colon, were, ordinarily, more or less altered; yet they were not constantly; so that the diarrhœa, sometimes, had a double seat, the large and the small intestines; sometimes one seat only, the small intestines. This last was the case in eleven subjects, in whom the mucous membrane of the colon possessed a proper consistence, and was almost perfectly sound; although among them four were found, in whom the diarrhœa had been considerable from the commencement of the disease; whence it followed that the duration and intensity of the diarrhœa did not indicate, with certainty, a lesion of the mucous membrane of the large intestine. And, independently of the cases in which there were at times, pains in the transverse direction of the colon, from tenesmus, or extremely frequent stools, it could not be affirmed, that the diarrhœa had its seat, not exclusively, but even in a part of the large intestine. The different periods of the

augmentation and diminution of the number of the alvine evacuations, afforded no additional light on this point; the stools were sometimes more, sometimes less frequent in the last stage of the affection, than at an anterior period, when the mucous membrane of the colon might be either altered, or in a sound condition.

"II. *In subjects attacked with the typhus affection who recovered.*—These were eighty-eight in number, fifty-seven of whom were severe, and thirty-one mild cases.

"1st. Of fifty-seven patients who laboured under symptoms, more or less severe, twenty-four had diarrhœa from the commencement of the disease; a proportion rather less than in those of whom we have just treated. Of the other thirty-three cases, the diarrhœa appeared in five on the second day, in three on the third day, and in four on the fourth day, &c. &c. &c. In two cases it appeared much later, on the eighteenth and thirtieth days of the disease. One of these cases, during twenty-five days, experienced only a slight diminution of appetite and strength.

"The greater number, those in which the symptoms were mild, experienced, ordinarily, only slight pains of the limbs; an aversion more or less marked to labour; a diminution of appetite; and a slight fever; in such a manner that the persons attacked thought, in this first stage, that they only laboured under the effects of excessive fatigue. And may it not with propriety be asked, whether these symptoms of weakness, which also prevailed during a certain time in some of those patients who died, indicated the commencement of the typhus affection; the commencement of the alteration of the elliptical plates of the small intestine; or whether they were independent, and could not be arranged among the symptoms, but only regarded as precursory indications."

Without investigating this question profoundly, which is referred to again under the head of *latent* typhus, the author remarks, "that the tardy appearance of the diarrhœa ought not to be a reason for removing the case from the typhus class, since three of the typhus patients who died, had no diarrhœa. In the cases, however, where there was neither diarrhœa nor pains of the abdomen, the other symptoms were even more in accordance with the presence of the alteration of the elliptical plates of the ileum, than with any other affection. And this is an additional reason to admit the existence of this alteration at this epoch. It may be further observed, that it is not possible to associate the symptoms which preceded the pains of the abdomen, and the diarrhœa, with those which anticipate the acute eruptions of the skin, the course of which is uniform; and that, without denying the existence of precursory symptoms, it is correct, nevertheless, to say that they are rare. We cannot, then, reject these milder and more tardy indications, since the symptoms, characteristic of peripneumony, erysipelas, and some other affections easy to be recognised at their commencement, are preceded for fifteen, twenty-four, and sometimes more hours, in some patients by general symptoms, which become subsequently more fully and definitely developed.

"2d. Considered in its progress and degree, the diarrhœa presented many varieties. Ordinarily, inconsiderable at its commencement, it increased very soon after, in a large number of cases, preserving the same character for a certain time, diminishing, in fine, gradually, and sometimes in an abrupt manner. It

was generally protracted, continuing in some patients forty and fifty days, and beyond that; this duration it was impossible to ascribe to the cinchona, which had not been administered in some cases, nor to errors in diet, or misconduct in many others. The diarrhœa had, in a majority of the cases, a relative proportion between its duration and intensity.

"It was excessive, feeble, or intermediate, in the following manner; excessive in fourteen subjects, who had from eight to twenty stools in the day, during one or two weeks; some of them more than that number, at, or a little after the commencement of the affection: feeble in twenty-two cases, where they had from two to four stools in the twenty-four hours: moderate in the twenty-one others; and in these two last groups it was of less duration than in the first. Its mean duration in all the cases collectively, was twenty-six days; thirty-three days in those cases where it had been excessive, during a lapse of time more or less considerable; twenty-six days in those cases in which it had existed in a moderate degree; and twenty-one days in those where it had been feeble. Doubtless its duration was in proportion to the lesions of the intestines, and, consequently, as the mild or excessive state of the diarrhœa prevailed; so would a longer or shorter time be required for the reparation of the intestine, in proportion to the depth and extent, or superficial and circumscribed state of the lesions.

"3d. The character of the evacuations did not differ sensibly from those which have been noticed in the cases which terminated fatally. Almost always deprived of *mucosities*, the stools presented a considerable quantity of blood, three, four, and six days in succession, in three subjects, one of which had very little diarrhœa. The blood was in clots in two cases; the stools extremely fœtid, blackish, pultaceous, as if formed of putrid blood, the two last days of the hæmorrhage in that case where it had continued six days; the case of a young girl of eighteen years of age, of a strong constitution, who had the most severe symptoms, the most intense meteorism, and in whom the menses had not suffered any derangement before the disease in question. These three subjects had, besides, suffered from epistaxis, which had been considerable in one of them; which indicated a disposition more obnoxious to hæmorrhage, which it was impossible not to admit, considering the small number of cases in which the alvine evacuations presented the hæmorrhagic character.

"The sanguineous exhalation commenced at an advanced period of the disease; that is to say, at the seventeenth, twenty-sixth, and thirty-second days of the disease, which had on the whole progressed slowly, and appeared at first not severe. As to the thirty-one subjects in whom the disease was light, the diarrhœa was altogether much less intense and much less protracted than in those of whom we have just spoken, so that it was only considerable in four cases, and its mean duration did not exceed fifteen days. It commenced, also, a little less frequently with the affection, or in about a third of the individuals, (twelve,) and it was wanting in two patients: one patient alone had stools a little bloody, so that the duration and intensity of the diarrhœa were in proportion to the violence of the affection.

"III. *In subjects who died of other acute diseases.*—The mucous membrane of both the large and small intestines did not present alteration in all the subjects of this class;" from which the author concludes, in the second part of this work,

"that this alteration was accessory or consecutive to the commencement of the principal disease. This, which the morbid anatomy of the affection indicated, the symptoms confirmed; and the commencement of the diarrhœa, allowed, in the majority of the cases, to fix with percision that of the lesion of the mucous membrane. It occurred in twenty-three out of thirty-five peripneumonic cases, was proportionally less frequent in those who died before the eleventh day of the disease, than in those who succumbed after this period; manifesting itself more or less remotely from the commencement of the principal affection, from two to twelve days before the fatal termination; it was ordinarily continued, sometimes transient, generally in proportion to the alteration of the mucous membrane of the large or small intestine, or to that of the colon, which was exclusively affected in some cases. It was much less frequent, much less excessive at the commencement, than some days before death, and it only occurred in half the subjects carried off by other acute diseases, generally less inflammatory than peripneumonia. This accords with what we have seen on the subject of lesions of the mucous membrane of the intestines; lesions more frequent and more severe in peripneumonic cases, than in those who have succumbed from other affections, among which will be found apoplexies, softenings of the brain, in which diarrhœa was very rare.

"Besides, here, as in the course of the typhus affection, the diarrhœa occurred in some cases, (five,) where the mucous membrane of the small intestine was alone altered. It was absent in some of those where the mucous membrane of both intestines was softened.

"IV. *In subjects attacked with acute affections, not typhus, who recovered.*— "Of fifty-eight patients affected with peripneumonia in different degrees, twenty-one, or about a third part, had diarrhœa. It was rarely considerable; from five to six days duration, sometimes more, sometimes less; commencing in the majority of cases, from the fifth to the eighth day of the disease, rarely sooner or later. It occurred the first day of the disease, in three individuals, who drank to excess of wine, the same day.

"Fifteen of the forty-six subjects attacked with *eruptive diseases,* (small-pox, scarlatina, measles, almost equal in number,) had diarrhœa, and its frequency was almost the same in these three species of affections. Less considerable and less protracted, with scarcely three exceptions, it commenced from the fourth to the sixth day of the disease, in the most part of the cases; frequently, nevertheless, on the first, (five times,) which indicates a particular tendency of the mucous membranes to alter in the course of these affections; a tendency which is indicated manifestly besides, by the state of the fauces in scarlatina especially.

"The fourth part of the subjects who had erysipelas of the face, (ten out of thirty-eight,) laboured under diarrhœa. Ordinarily mild, continuing from three to ten days, it commenced from the fourth to the eleventh day of the disease. The treatment nevertheless had probably some part in the production of the diarrhœa, in six cases where it succeeded the exhibition of mild purges.

"We observe *some part,* considering that almost all the patients had at a certain epoch of the affection taken gentle cathartics; which had not been followed by diarrhœa, except in the six cases indicated, and consequently an exciting action alone, could be attributed to the purgatives at the time, which must

have met in the subjects on which they acted, with a predisposition, which would have been sufficient, in a short time, without their concurrence, to have caused the diarrhœa.

"Of thirty-nine patients affected with angina gutturalis, (cynanche pharyngea,) more or less intense, four had a looseness, somewhat considerable in three of them. It occurred at the commencement of the disease in one case; on the third day in another; on the seventh in the two last, persisting from eight to twelve days. It did not in any case follow purgatives, which were almost always administered: and this fact comes in support of what has been already said on the little influence which was to be ascribed to purgatives, in the diarrhœa of patients attacked with erysipelas of the face. It is also perfectly in accordance with what was observed in the first part of this work; that the secondary lesions were in proportion to the febrile action, which is generally more feeble in angina than in erysipelas.

"Of fifty-seven cases of acute rheumatism, diarrhœa occurred in eight. It commenced on the second day of the affection in one subject; very considerably later in the others, from the eleventh to the fortieth day; continuing five, fourteen, and thirty days; was excessive in two cases; especially in that which evinced the most obstinacy.

"The diarrhœa was rather less frequent in patients attacked with pulmonary catarrh. In seventy-two cases the eighth or ninth part were affected. It was moderate in every case, so much so, that no patient had in the course of the day more than three or four stools. It commenced from the fifth to the eighth day of the disease, rarely later, and continued from one to three weeks.

"In twenty cases of urticaria, (fievre orticees,) zona circinatis, or erythema marginatum, one only of the last afforded a case of diarrhœa, which commenced on the fourteenth day of the disease, and continued fifteen days.

"In fine, two subjects, out of twenty-six who were attacked with idiopathic jaundice, *(ictere essentiel,)* had diarrhœa either from, or five days after the commencement of the affection. And what is worthy of remark, it was not excited into action, in any case, by purgatives, which had been administered once and oftener in almost every case; which affords an additional proof in support of what was said in respect to erysipelas and cynanche pharyngea, in relation to the necessity of admitting a predisposition to diarrhœa, in those cases where mild purgatives produced a looseness of longer or shorter duration; and the absence of this predisposition in those cases in which there was little or no fever.

"Should these facts appear insufficient to establish this double proposition, at least the last, it is placed beyond all doubt, by what occurs in patients attacked with colica pictonum, to whom we administer emetico-cathartic and drastic purgatives, without their action being extended beyond the day or that following their exhibition. At least, of seventy patients treated by this method at La Charité, one only suffered a slight super-purgation of some days duration.

"If we now return from the consideration of the diarrhœa, to the cause which produced it, we must conclude, from the preceding observations that the mucous membrane of the intestines was frequently altered, to a greater or less extent and depth, in the course of all acute diseases, more or less febrile,

which have terminated favourably; that between these cases, and those which terminated fatally, the difference consisted only in the degree and frequency of the lesions, both being in proportion to the violence of the febrile excitement; and that this law of sympathy, which the study of the varying state of the intestines has indicated to us, is alike applicable to cases which succumb, as to those which recover."

We offer no apology for presenting in detail the entire observations of the author on the individual symptom of diarrhœa. Independently of the valuable facts and observations exhibited, it was the only plan which we could with propriety adopt, to enable our readers to estimate correctly the elaborate, critical, and ample manner in which this part of the work has been executed. Throughout the whole of the researches on the various symptoms, there appears to us, an indefatigability of investigation, a niceness of discrimination, a faithfulness of delineation, and an exactness of deduction which cannot be too much admired nor too closely imitated.

The anatomical character of the disease, under which we embrace the various lesions of structure, is treated in a like able manner with the preceding.

This part comprehends a description of all the lesions of the viscera; in the first place in those who died of the particular disease under consideration, and secondly, in those who have been carried off by other acute diseases; and, at the close of each description, the author endeavours to ascertain the causes; the character of the lesion described; and the period of its development. Although he has introduced into this work the histories of fifty patients who died of the typhus affection, yet he rests the general description of the symptoms, and the anatomical character, upon forty-six fatal cases, in which there could be no doubt of the identity of the disease. Of these forty-six, ten died from the eighth to the fifteenth day of the disease; seven from the sixteenth to the twentieth day; twenty from the twentieth to the thirtieth; and nine beyond this period.

By regarding the subject in this general and comparative point of view, the author has been enabled to ascertain, with considerable accuracy, the lesions which were essential to the disease under consideration; those which were merely incidental; and those which were only accessory or secondary in their appearance.

To the consideration of this part the author has appropriated about three hundred pages, and it is decidedly the most interesting part of the treatise.

After having considered, at large, very fully and minutely, the le-

sions of each respective organ of the system, and entered into all the details necessary to a profound knowledge of the facts, the author presents us, in a very condensed manner, with a summary view of this part. The facts thus summarily arranged, are presented under the head of each respective organ.

"1st. *The pharynx* presented one or more lesions in a sixth part of the cases: false membranes; a purulent infiltration into the cellular sub-mucous tissue; but, more commonly, ulcerations.

"2d. *The œsophagus* presented a single species of alteration, only; that of ulceration; which was found in a rather smaller number of subjects than the affections of the pharynx. The ulcerations were sometimes few, sometimes numerous; and almost always inconsiderable in size.

"3d. *The stomach* was rarely augmented in size. Its mucous coat was in a natural state in thirteen subjects; softened and thinned in bands, or in a continued manner in nine; ulcerated in four; more or less mamilloid or softened in different degrees, and in a variable extent, with or without alteration of colour in the others.

"4th. *The small intestine* was meteorised, (tympanitic,) in fourteen cases; to a remarkable degree in two only; and it exhibited invaginations of the superior, into the inferior portion in three subjects. Its mucous membrane, distinct from the elliptical plates, was white in rather less than one-third of the individuals; red, varying in extent of length in seventeen; grayish in eleven; of a proper consistence in its entire extent in one-fifth of the cases; and softened in extent and degree, more or less considerable, in the others. There were solitary cryptæ, more or less developed, near the cœcum in one-fourth of the subjects. In *all* the *elliptical plates* were more or less altered, and this alteration was greater, and more profound, in proportion to their proximity to the cœcum; near to which the perforations of the intestine, when present, were found to exist. The corresponding cellular tissue was also constantly altered, in such a manner, that it was impossible to decide rigorously, whether the lesion commenced in this tissue, or in the mucous membrane; or whether these two membranes were invaded at the same time.

"5th. *The large intestines* were tympanitic, in more than half of the cases, ordinarily to a remarkable degree; their parietes, at the same time, retaining the thickness which was natural to them, or acquiring additional thickness, as we observe in the small intestines when distended by fæcal matters, in a state of strangulation. The mucous membrane was white in thirteen subjects; red, in a variable extent, in twenty; grayish in nine; of a natural consistence in one-fourth of the cases; softened, in a greater or less degree, to an extent more or less considerable, and sometimes thickened in others.

"Eight subjects presented a greater or less number of the lenticular cryptæ, seldom ulcerated; in four the plates were hard, small, roundish; in others similar to those of the ileum; in fourteen the ulcerations, ordinarily not numerous, were superficial, and of small extent.

"6th. *The lymphatic glands* were frequently far from being in a natural state. Those of the mesentery, which corresponded to the elliptical plates of the ileum, more or less altered, were red, thickened, softened, &c. &c. in every

case, and this triple alteration presented varieties, more or less remarkable, at different periods of the disease.

"The mesenteric glands, which corresponded to the sound elliptical plates, presented, in one-fourth of the cases, even the same alteration, but in a considerable less degree. The mesocolic glands were also the seat of analogous lesions, ordinarily severe, but not so in every case. The cervical glands, and those of the great and small curve of the stomach, were sometimes red and thickened to the same degree as the mesenteric glands, which corresponded to the healthy plates. The lymphatic ganglions surrounding the biliary ducts, were, in two cases, violently inflamed.

"7th. *The spleen* in all, with scarcely four exceptions, was profoundly altered; ordinarily thickened and softened; very frequently quadruple or quintuple in size, and then, constantly, very considerably softened.

"8th. *The liver*, in some rare instances, was a little more enlarged, or diminished in size, than in its ordinary state. It was softened in one-half of the cases; to a remarkable degree in some, and then ordinarily it was of a pale colour, containing little blood, and presenting, when incisions were made on its surface, a dry aspect.

"*The bile* was very abundant, very liquid, reddish or greenish in a majority of cases, and sometimes turbid.

"*The gall-bladder* in three subjects contained true pus, and its mucous coat was more or less red and thick in the same cases.

"9th. *The kidneys* were softened and enlarged in some individuals, evidently inflamed in one of them; ordinarily, however, healthy. The internal lining membrane of the pelvis of the kidney was more or less red and thickened in two cases; that of the bladder in two others; and in a third it presented a small ulceration near the meatus urinarius.

"10th. The parotid glands were not inflamed, except in one case.

"11th. *The heart* was sound in rather more than half of the cases; more or less softened in others; and sometimes to an extreme degree. In these cases it was of a lived red; its parietes thin, capable of being very easily torn; and its cavities contained only some drops of blood mixed with air, or else this fluid was serous, not fibrous. The reverse of this prevailed in those cases in which the heart was sound.

"*The aorta* was of a red colour, more or less bright, in almost all the cases where the heart was soft; and sometimes in these cases its internal membrane was softer and thicker than ordinary. This red discoloration was rare in those cases where the heart was sound, and when it did occur was very slight.

"12th. *The epiglottis* was red, enlarged in every direction, and was covered by a false membrane in two cases; it presented with the same thickening a partial destruction, little extended, at its summit, or laterally, in one-sixth of the cases.

"13th. *The larynx*, in three cases, was covered by a false membrane; it was affected by a small ulceration in a fourth.

"14th. *The lungs*, in a third of the cases, were in a natural state, or nearly approaching to it; spleenized or hepatized in the others to an extent ordinarily not very considerable. These two lesions existed isolated or simultaneously.

"15th. *The pleuræ*, in rather less than half the cases, contained from three to thirty ounces of bloody serum.

"16th. *The arachnoid* was covered, to a moderate extent, at the superior part of the brain, by a false membrane, extremely soft in two subjects. The *cortical substance* of the brain was more or less rose-coloured or red, in seventeen cases; its *medullary substance*, in most of the cases, was injected, ordinarily to a moderate degree; both, in seven subjects, were a little softened. In two others there was a partial softening, inconsiderable, bordering on the septum lucidum, or approaching to one of the thalami optici.

"*The cerebellum*, in a smaller number of instances, presented the same lesions as the brain.

17th. *The skin*, in fine, presented deep traces of phlegmonous erysipelas in four patients; it was thickened or thinned, partially ulcerated or completely destroyed, in those places where blisters had been applied. Its destruction, in a considerable number of patients, was also complete. Apart from the erysipelatous state, the sub-cutaneous cellular tissue did not, except in two cases, present any alteration; one of which was an abscess beneath the inferior maxilla, and an emphysema of the neck."

These various lesions, which were found conjoined in a greater or less number in every case, were not all of the same nature; could not all be referred to the same cause; were not equally frequent in patients who died at different periods of the disease; nor were they developed at the same epochs of the affection.

Relative to their character, some were the result of inflammation, more or less direct; others appeared to be independent of inflammation. To the first class may be referred the false membranes of the pharynx and trachea; the infiltration of pus into the sub-mucous cellular tissue of the pharynx; the ulcerations of this organ; those of the œsophagus and stomach; the mamilloid state of the mucous membrane of this viscus, its softening, its softening with thinning; the alteration, more or less profound, of the elliptical plates of the ileum; that of the corresponding mesenteric glands; the softening of the internal membrane of the large intestines in many subjects; its hardened plates, its ulcerations; the swelling and the softening of the meso-colic glands; the redness united with thickening of the mucous coat of the gall-bladder; the thickness and redness of the pelves of the kidneys; the softening of the kidneys themselves in one case; the partial destruction of the epiglottis; the hepatization of the lungs; the false membrane of the arachnoid; in fine, the erysipelas, the eschars of the sacrum, the ulceration or the thickening of the skin in those parts where blisters had been applied.

The second class, or those lesions independent of inflammation, were the pale softening of the liver and the heart; the redness of the aorta, evident at least in the greater number of the cases; the soften-

ing of the mucous membrane of the stomach, and of the large and small intestines, in a certain number of subjects; the spleenization of the lungs; the effusion of bloody serum into the pleuræ; the different states of the spleen; the general softening of the brain; and the more or less rose or red colour of the cortical substance of this viscus.

Some of these lesions, the ulcerations of the pharynx, of the œsophagus, and of the epiglottis, were not observed in those patients who died from the eighth to the fifteenth day of the disease; but were more frequently noticed in those who died from the sixteenth to the thirtieth day, than among those who were carried off after this period. The other lesions were also, generally, less marked in this last period than in the others, the first especially. From the fact, that certain lesions were less obvious and less frequent in patients who died after the thirtieth day of the affection, than in those who died sooner, the author asks whether this difference was owing to these lesions having always been in a more moderate degree in these protracted cases, or whether they had retrograded towards a healthy state. This question he considers the more natural, as the alteration of the elliptical plates of the ileum, and that of the mesenteric glands, had evidently followed a retrograde course in a great number of patients. Although this retrograde course he regards as very probable in a certain number of cases, yet many facts he considers do not depose any thing in its favour. For if this retrograde march, if we may say so, had an existence, and the difference of proportion which is at present under consideration should be ascribed to it, this difference ought to amount to nothing in those lesions which leave deep traces, such as the ulcerations of the pharynx and the œsophagus, the partial destruction of the epiglottis, and the softening with thinning of the mucous membrane of the stomach, and yet in these very lesions the difference was great. Besides, had these lesions been the same in all the cases, how can we conceive that death should occur after the lapse of a short period in some cases, and not until after a considerable time in others, did there not exist in these two classes of cases an extreme difference in the morbid condition of the ileum.

"It is nevertheless, to say the least, impossible to admit, that the secondary lesions are not of any importance; nor will it avail to admit that they existed in the different groups of subjects in the same proportion; but that their presence was more or less marked by different degrees of severity. This last view, however, can only be regarded as a supposition, and therefore unworthy of arresting our attention.

"The most conclusive reasons in favour of the retrogradation of the lesions from their morbid towards a healthy state, in a certain number of the cases, were, in the first place, that this retrogradation applied to the elliptical plates of the

ileum and the mesenteric glands; and secondly, that the grayish colour of the mucous membrane of the alimentary canal was not observed in subjects who were carried off from the eighth to the twentieth day of the affection, but almost uniformly in those who died after the twenty-fifth day; and that this colour is one of those changes which the inflamed membrane experiences in passing to its natural state."

Of all the various lesions observed, one alone was constantly present in all the cases of the typhus affection—the alteration of the elliptical plates of the ileum; to which might be added the alteration of the mesenteric glands.

The alteration of the elliptical plates, the author regards, as inseparable from the main disease under consideration, and as constituting its anatomical characteristic. As this lesion, however, was more or less profound in some patients who died on the eighth day of the disease, and, as in much the greater number, the first symptoms indicated a lesion of the intestinal canal, and as the alterations of the ileum were more profound than those of the colon, which was healthy, in a considerable number of cases; the author concludes, that the alteration of the plates of the ileum had its origin, simultaneously, with the commencement of the disease.

"Notwithstanding," says M. Louis, "the other lesions could be regarded as accessory only, or consecutive; they commenced, nevertheless, very frequently at a very early period; since many of them, the different softenings especially, were more profound in subjects who were carried off, from the eighth to the fifteenth day of the disease, than in those who died at a more advanced stage of the affection.

"The anatomical character of the typhus affection becomes still more evident by comparing the various lesions which have been considered, with those which individuals present who have died of other acute diseases; for if we except from these lesions those of the elliptical plates of the ileum, the ulcerations of the pharynx, the œsophagus, and the epiglottis, which were only present in the typhus affection, the lesions were the same. There was no difference, except in the proportion of the cases in which they were met with, and that only in respect to some of the organs; since, in regard to the other organs, the mucogastric membrane for example, this proportion did not differ sensibly. The mucous membrane of the stomach was in a natural state more frequently, even, in the course of this disease, than it was in subjects who had died of other acute affections. And, as we cannot with logical niceness, or even propriety, denominate an ordinary peripneumonic affection, a gastro-peripneumony, because we frequently find an alteration more or less profound of the mucous membrane of the stomach upon post mortem examinations of patients who have sunk under an inflammation of the parenchyma of the lungs; neither can we, with more propriety or consistency, designate the typhus affection, a *gastro-enteritis.*"

These lesions of the mucous membrane of the digestive passages,

however, and those of a number of the other organs in patients who have died of acute affections, of whatever nature the lesions may be, prove, that whenever they give rise to a febrile excitement of some duration, the greater part of the viscera become very soon the seat of lesions more or less profound, the digestive mucous membrane not more, and even less frequently, than some others, the spleen for example, which, with the exception of four patients, was altered more or less in every case of the typhus affection. These facts the author regards as indicative of an important law of the animal economy, which he thinks can, if he is not greatly mistaken, simplify greatly, the study of pathology; and which would, perhaps, ere long, have been discovered *à priori;* "for what cause," he asks, "apparently, is more capable of producing all kinds of diseases and lesions, than a febrile excitement, more or less violent, and sometimes of long duration?"

The ulcerations of the pharynx and the œsophagus only occurred in a small number of typhus patients, and not in any other case; and ought, therefore, to be regarded, in some measure, as characteristic; only *secondary* however; but important nevertheless; inasmuch as some ulcerations of the pharynx or œsophagus sufficed, in a patient who had died of an acute disease, to indicate, with a certainty almost absolute, the nature of the affection. The same remarks apply very nearly to the partial destruction of the epiglottis. The ulcerations of the large intestine had also something peculiar and characteristic to the typhus affection; they occurred much more rarely in the course of other acute diseases, which only afforded three examples. These cases apart, and a fourth relative to a small ulceration of the larynx in a peripneumonic patient, the author only met with ulcerations in subjects who had died of acute diseases, in those individuals who had sunk under the affection which constitutes the special object of these researches. The author, therefore, concludes, from these and other facts, that the typhus is distinct from other acute affections; not only as regards its seat, and the character of its lesions, but also from a disposition, profoundly impressed on the membranous tissues, which inclines them to take on ulceration. "That, in fact, under this relation, *the typhus is to other acute diseases, what phthisis is to other chronic affections.*"

The alterations of the spleen had also something peculiar to the typhus affection, since these lesions occurred in all those who died, with the exception of four cases, and without exception, in all those who sunk from the eighth to the fifteenth day; while they were much less frequent in the course of other affections, in which they were

not observed to attain the maximum of development which they present in many fevers.

After the recitation of these facts, the author asks—

"What are we to think of the doctrine of derivation and of revulsion, or of the possibility of destroying one inflammation by another, at a period more or less remote from the commencement of the disease?" For he observes, "we do not speak here of simple pains which can frequently be removed by the excitation of a new pain; but what are we to think of the truth of this doctrine, when it is a law of our economy, that an inflammation produces a number of secondary lesions, and ordinarily a new inflammation.

"Doubtless it only becomes us to make observations, to remove uncertainties, and to trust to time to furnish facts capable of conciliating facts apparently contradictory, and finally to submit to the dictates of experience. Has experience, however, really spoken? Where are the facts which prove in an unexceptional manner, the utility of derivatives and revulsives in those cases in which they have been employed? Have we not taken for effects, simple coincidences? And does it not seem that if the representation of the lesions which we have described does not suffice to overturn the doctrine of derivation, it ought, at least, to excite doubts in the more intelligent, as to the utility of the precepts upon which it is based, and at the same time the desire of seeing this doctrine sustained, or overturned, or modified by new facts."

Having presented this summary view of the anatomical character of the disease, we will notice in like manner the author's observations on the proximate *cause of death.*

"It probably," he says, "never occurs that individuals who die of a disease, the seat of which is precisely determined, only present lesions in the organ primitively affected; at least we have never met with an instance. But in the greater number of cases, the derangement of the primitive organ is so considerable, that death may be readily accounted for from it; and without this relation we can, even to a certain point, in many cases, make an abstraction of the secondary lesions; while in others the primitive lesion is so slight, either on account of its having always been so, or its having retrograded for some time before death, that this event can only be explained by means of the accessory lesions, and we are sometimes forced to admit that the patients would probably have recovered had these last not been superadded to the first. As facts of this kind are not rare, and as post mortem examinations, even to the present time, have been conducted with but little care, it is not to be doubted that they have contributed powerfully to maintain, even with the most intelligent, the ancient doctrine of fevers; since some have thought proper to deny that the small intestine was the seat of these diseases, because its lesions would not explain always the cause of death in those who succumbed. We shall, therefore, concentrate on this point, in a general manner, the facts scattered throughout the individual cases.

"In eighteen cases, or rather less than two-fifths of those under consideration, death could not be explained from the state of the elliptical plates of the

small intestines, the intermediate mucous membrane, nor the mesenteric glands; for this purpose it was necessary to have recourse to the lesions of other organs, of the large intestine, of the stomach, &c. &c. &c. lesions, which in every case except two appeared to account sufficiently satisfactorily for the fatal termination. The following were the proportions in which the secondary alterations or lesions appeared to be the principal causes explanatory of death. It resulted from a phlegmonous erysipelas of the lower extremities in three patients; from an arachnitis, very recent and moderately extensive, in two others; from inflammation with exudation of lymph of the trachea, in two cases; in part from an œdema of the glottis in the first case; from an inflammation terminating in suppuration of the cellular sub-mucous tissue of the pharynx, in two subjects; from hepatization and obstruction of the lungs in two other cases; from the same lesion, with softening, more or less marked, of the mucous membrane of the stomach, in two cases; and in the two last cases from a great number of lesions, which, considered separately, could not be regarded as competent, of which the principal had their seat in the lungs, and the stomach in one case; of the stomach, where were found many ulcerations, of the heart, the liver, and the spleen very softened in the other.

"The proportion of the cases in which death could not be explained by the lesions of the small intestine, was not the same in all the groups of patients; it was more considerable in those who died after the twentieth day of the disease, than in those who were carried off before that period."

The author closes his view of the causes of death, by the introduction, at large, under this head, of three cases very fully detailed, in two of which death could only be referred to the state of the mucous membrane of the stomach, and the third very analogous in its character, but peculiar in this respect, that death occurred unexpectedly and without agony.

After this view of the disease, in respect to its symptoms, its lesions, and the causes, primary and secondary, of its fatal termination, we will present the author's observations on the remote and exciting causes productive of the affection.

"*Of the Causes.*—While the causes of enteritis are frequently evident, those of the typhoid affection are unknown; at least it is impossible to assign them after the observations which I have made: in fact, my researches on this point only confirm what experience has already taught, of some of the circumstances which favour the development of this disease, the age, the change of habits, and perhaps the sex.

"*Of the Age.*—The subjects attacked with the typhoid affection were young; the medium period of those who sunk under it was twenty-three years, the medium period of those who recovered was twenty-one years.

"Of the first class, or those who died, fourteen were from seventeen to twenty years—twenty, from twenty to twenty-five years—eleven, from twenty-five to thirty years—five from thirty to thirty-nine years.—Total fifty.

"Of the second class, or those who recovered, thirty-one were from fifteen

and a half to twenty years—thirty-nine, from twenty to twenty-five years—thirteen, from twenty-five to thirty years—five, from thirty to thirty-nine years.—Total eighty-eight.

"The slight difference observed in the medium age of those who died and of those who recovered, could not have been accidental, because before the age of twenty-five years, the number of patients who recovered was much more considerable than of those who died; while after that period of life, the number of those who died or recovered was nearly equal. In fact, if youth is a condition necessary to the development of the typhus affection, it is also less appaling, in proportion as the patients are less advanced in life. No individual under seventeen years of age died, although there were six cases.

"*Change of Habits.*—With some few exceptions, which I shall indicate, the persons attacked with the typhoid affection had resided at Paris but a short time, the medium term of those who recovered was fourteen months, of those who died, eleven months. Whence we must conclude, that if Paris, and the kind of life which is led there, are favourable to the development of the typhus affection, this disease presents less danger, in proportion as the abode in this city was less recent. This might be easily predicted or foreseen from the ordinary effects of acclimation.

"The following tables are detailed proofs of the preceding observations:—

"In those who died, ten had resided at Paris from two to three weeks—eight from three to five months—ten, from six to ten months—nine from eleven to twenty months—five, from twenty to thirty months—two, from four to eight years.—Total forty-four.

"Among those who recovered, seven had been at Paris from two weeks to three months—nineteen, from three to five months—nineteen, from six to ten months—twenty, from eleven to twenty months—twelve, from twenty to thirty months—one, from thirty to forty months—seven, from four to eight years.—Total eighty-five.

"That is to say, of the seventy-three persons attacked with the typhus affection, and who had resided at Paris from two weeks to ten months, twenty-eight, or more than a third of them died; while of fifty-six who had resided there for a space of time more considerable, sixteen, or less than a third part only died. Three of the patients who recovered and one of those who died, had resided at Paris from infancy. We perceive, besides, that in order for these numbers to be an expression of exact truth, there ought to have been of all the different classes of workmen, of Paris, of all ages in the same proportion in the hospitals, which was not absolutely the case; a very considerable number of those who had been established there many years, received attention in the city; but with even regard to this fact, it is not less incontestible, that the typhus affection is much more frequent at Paris among those newly arrived, than among those who have resided a considerable time.

"*Difference of sex,* seems at first view, to have a great influence on the development of the disease which occupies our attention; for of one hundred and thirty-eight subjects who were affected, thirty-two only, or less than a fourth part were of the female sex, and my observations have been made in the rooms where the number of beds destined to either sex was the same. But this influence, if it exists, is without doubt much less in reality, since the number of

men who come to Paris, is, according to all appearances, much more considerable than that of women. And what confirms this manner of viewing the subject is, that the mortality was the same in the two sexes, which would not be, without doubt, if the predisposition to the disease was more considerable in one sex than the other.

"*Of Professions.*—I have also examined if a different profession had not some influence on the development of the typhus affection, and with that view I have divided the patients into those in whom the profession excited a considerable development of the animal powers, and in those of whom the occupation did not necessarily produce this development. The first were to the number of seventy-seven, the others fifty-five, a difference not considerable; less real than apparent, perhaps, under the point of view which occupies us, owing to this fact, that the workmen in each respective profession not being probably equally numerous at Paris, as we may judge from the large number of masons and carpenters who abound there. This view of the subject is sustained from what I have remarked in relation to the sex, that the mortality does not differ sensibly among the two orders of subjects; in fact, that the disease had a fatal termination in eighteen of those of whom the profession was but little fatiguing, and in twenty-eight individuals who were in opposite circumstances.

"*Of the constitution, moral suffering, excess of labour, and excess of the table.*—The patients attacked with the typhus affection were generally of strong constitutions; but to know whether those of strong constitutions were more frequently affected than the feeble, we must know the proportion of the one to the other in the new comers to Paris, of which we are ignorant.

"As the mortality was the same at all times, both in the strong and the feeble, proportions being respected, we can presume that the typhus affection was not more frequent in the first than in the second.

"The facts which I have collected do not lead me to ascribe more to the excess of labour, anxiety, and mortifications of all kinds, as causes of the typhus affection; since only the seventh part of those who recovered or died, had distress more or less profound, or had laboured beyond measure during a certain time; nor is it possible to know whether these individuals, who were, besides in the same circumstances of age and of place as the others, would have experienced or not the typhus affection, had they been exempt from pain or had laboured moderately.

"A residence in a low place, or inhabited by a great number of individuals during the night, could not be assigned as causes, as only the eighteenth part of the patients were thus situated. An equal number of patients partook at one time or another of wine to some excess; but these excesses did not precede immediately the symptoms of the affection, or at least there was an interval from two to three days in every case.

"The most profound obscurity reigns then on the causes of the affection which occupies us. But these causes, whatever they may be, have without doubt a certain part in the mortality and the development of the secondary lesions; this we can say of many of the severe diseases which manifest themselves also, without any appreciable cause or under the influence of exciting causes so light that they prove the existence of predisposing causes. At all times we

should not attribute to these a too great part in the mortality or the febrile excitement, as it appears to me some persons have done, who have more particularly fixed their attention on the case where the alteration of the small intestine was inconsiderable and disproportioned to the violence of the symptoms. We have seen in effect, in the first part of this work, that the number of elliptical plates altered were generally considerable, from twelve to fourteen, in two-thirds of the subjects of whom I have recorded the history; these plates had in their medium size, more than an inch of superficies, about an inch and a half, and formed by their reunion a considerable surface, superior in the most part of the cases to that of the inflamed skin in erysipelas of the face. These plates being altered, the corresponding mesenteric glands became also in an analogous manner affected very soon; and the mucous membrane intermediate to the plates suffered in most part of the cases a greater or less severe lesion; if we add to this, that the altered plates were constantly in contact with matters which were irritants to them, we will be convinced that the febrile excitement observed in the typhus affection was not more in proportion to the state of the small intestine, than that which exists in erysipelas of the face is to the extent of the inflamed skin. If we are not capable of appreciating every thing by the senses, if there are other circumstances than what we have observed in the typhus affection, it is the same, in almost all the internal maladies, which are not less mysterious in this respect than fevers."

To the fourth part of this work, or that which relates to the treatment, the author has only appropriated between sixty and seventy pages.

"If it is difficult," he observes, "with only a limited number of exact observations, to describe, with precision, the symptoms; the progress of an affection; and, in general, to expose clearly all that we may deem necessary to be known respecting it; how much more difficult is it even to indicate, not only the best method of treatment, but to appreciate, in a rigorous manner, the effect, whatever it may be, of a therapeutic agent. It does not suffice, however, for this purpose, to estimate the immediate effect of this agent, which is not so easy as we might at first suppose; but we must also especially indicate the result of its action relative to the mortality, and to the rapid or slow march of the disease; and to arrive at this conclusion it is necessary to compare together a great number of cases of the same affection, presenting the same degree of severity; some cases in which the disease had been abandoned to itself; and others in which different medicines had been administered. This accomplished, we ought to study the effects of the same therapeutic agent, both in severe and slight cases; in those in which it is employed in strong or in feeble doses, at periods proximate or remote from the commencement of the disease, alone or concurrent with other means; and this exacts, not only a great deal of labour, but supposes a considerable series of facts, the reunion of which is difficult, especially in severe diseases, the danger of which excites us constantly to new efforts, and does not permit us to remain as spectators merely. But in order to judge correctly on this subject, it is not enough for us to indicate, with considerable exactness, the methods which appeared to have more or less success; but to demonstrate in an incontestable manner, that a medicine or re-

medy is useful or injurious; which is always more or less the case, according to the manner and the circumstances in which it may have been employed."

From these preliminary observations on the treatment, it must be evident, that the author does not pretend in a definitive manner to establish the value of the therapeutic agents employed in the course of this affection. The facts and observations, however, which he has established on this point, will not be destitute of interest and utility, and he has arranged them under the respective heads of blood-letting, tonics, blisters, ice to the head, &c.

I. *Of Blood-letting.* Under this head the author embraces both general and topical.

1st. *In subjects who died of this disease.*—In fifty-two patients of this class, thirty-nine were bled more or less frequently; the others were not. The mean duration of the disease in the first was twenty-five days and a half, and twenty-eight days in the second; so that, at first view, it would seem, that blood-letting hastened the fatal termination. In order to give this calculation due weight, we ought, undoubtedly, to abstract from the list of those bled, the cases, in which it was so very inconsiderable in quantity as to produce little or no impression on the disease, and those in which it was practised at a remote period from the commencement of the affection. Calculated, on this principle, the mean duration of the different classes changed a little, being, in the individuals not bled, bled too late, or bled in too small quantities to answer any useful purpose, twenty-six days; and in those under contrary circumstances twenty-six and a half days. Blood-letting would, therefore, appear not to have had any influence, or, at least, very inconsiderable on the progress of the disease in those cases which terminated fatally. In five patients of this class who were bled more or less largely by means of the lancet, or leeches, or these united, in the first five days of the affection, its mean duration was twenty-one days; and in seven other subjects bled in the same manner, as abundantly, from the sixth to the tenth day, the mean duration was twenty-three days. Thus it would appear, that the fatal progress of the disease was more rapid in those largely and promptly bled, and that too in proportion as the first emission of blood approximated to the commencement of the disease.

It may, perhaps, be objected, that blood-letting in those cases in which it was practised, was not the exclusive remedy, and that the subsequent administration of tonics may have neutralized the influence of the bleedings. Facts do not support this objection.

Of twenty-one patients who were bled sufficiently freely, and be-

fore the second half of the disease, seven took tonics, two of them powerful tonics, and the mean duration of the affection was thirty-one days. The blood-letting in these seven had not been more largely practised than in the others; and, therefore, the duration could not be ascribed to that circumstance.

Four patients experienced decided relief immediately upon blood-letting being practised. This relief was experienced by one of them after each of the two first bleedings practised before the seventh day of the disease, which did not prevent death taking place on the fourteenth day, after an additional bleeding, and three applications of leeches.

The other patients, on the contrary, suffered more, and were more uneasy on the day succeeding the bleeding, than they had been before. If, on account of the ordinary progress of the affection, we ought not to conclude, that the blood-letting had been really injurious in these cases, we may, at least, with propriety admit, that it did not impede the progress of the affection.

The pulse was observed on the same and succeeding day on which blood-letting was practised in one-half of the cases. It was found to be a little less accelerated after, than before the emission of blood, in four patients bled at different periods of the disease, but for a short time only. It preserved in the others the character and the quickness which it had immediately before bleeding, or it became more accelerated on the day succeeding to that on which it was practised; nevertheless, one of those affected in this manner experienced some relief after the emission of the blood.

"Although, as we shall presently see, we cannot attribute, in a positive manner, the diminution of the quickness of the pulse observed in the preceding cases, to the depletion of the circulatory system; yet it is correct, nevertheless, to say, that it was more common after bleeding by the lancet, than after the application of leeches; in fact, that if the emission of blood proved useful in the typhus affection, and, if we may come to a rigorous conclusion from the small number of cases in which it was employed, the method by the lancet should be preferred to the application of leeches."

The delirium diminished the day after bleeding, in two cases, and ceased in a third in whom it had existed previously in a feeble degree. In the others the cerebral functions, in whatever state they might be, did not experience any appreciable change, or else the delirium commenced the same evening or on the succeeding day to that on which the bleeding was practised, or it assumed more violence. This perseverance or this augmentation of the cerebral symptoms occurred in a very considerable number of subjects, however abundant the blood-

letting, and in whatever manner practised. It is proper also to remark, "that the amelioration observed in the three cases noticed, followed not the application of leeches, but blood-letting by the lancet, which confirms what has just been said of the preference given to the last mode of bleeding."

The amelioration of symptoms as respects the abdomen was not more marked. The diarrhœa diminished a little in three cases on the day following the blood-letting when it was practised with the lancet. It continued to the same degree or increased in the other patients. The pains of the abdomen augmented twenty-four hours after blood-letting in one case; they were stationary in the others or did not diminish in the least. The tympanitis occurred for the first time, or became more developed the day following the opening of a vein in two subjects. It did not diminish in any, in whatever manner the blood-letting had been practised.

The tongue was sensibly more moist the day after blood-letting in one patient.

Thus "the happy changes observed in the state of the pulse, in the heat and the cerebral functions, subsequent to blood-letting have been rare; much more frequently, the state of the circulation, and the other functions remained the same, or became more severe under the same circumstances, in such a manner that it is impossible to affirm the amelioration indicated was really the effect of the blood-letting. The observation of the symptoms in the subjects who were not bled, or at some distance of time from the emission of blood in those who lost some blood, sustains this doubt."

The pulse presented more or less variation, from the eighth to the twentieth day of the affection, in nine subjects who were not bled, and in one of them which will serve for an example, it beat successively 108, 112, and 90 strokes in a minute. It presented similar changes in five patients who were bled in the first ten days of the disease, and in two others who were bled after this period. The heat of the skin presented the same alternate augmentation and diminution in a fourth part of the cases. Analogous variations in the delirium occurred also in two cases.

Very marked variations were also observed in the stools in a fourth of the subjects, four, five and six days in succession; both in those who were bled once or oftener, before or after the detraction of blood, at a period more or less considerable; and in those patients from whom blood had not been extracted by any means, and independently of tonics also, which had not been administered except at a very remote time. And as an example of these spontaneous variations in the frequency of the stools, we may mention one case, in which

from the fifteenth to the eighteenth day of the disease inclusive, the stools were in number five, ten, three, and eight; each number corresponding to the respective intermediate day.

These spontaneous variations confirm what was said in the first place, of the difficulty of appreciating the immediate effects of therapeutic agents, the most energetic in appearance.

2d. *Of Blood-letting in subjects attacked with the typhus affection who recovered.*—Of eighty-eight patients thus circumstanced, sixty-two were bled; blood was not taken from the others either on account of the feebleness of the reaction, or because they were brought to the hospital at a period remote from the commencement of the disease. The mean duration of the affection in these was thirty-one days, and in the others thirty-two days. In seventeen individuals in whom the affection was severe, blood-letting was practised twice from the first to the tenth day, and from ten to twelve ounces at each time, and the mean duration of the disease was thirty days. The mean duration was thirty-two days and three-quarters, in subjects in whom the first bleeding was practised from the tenth to the twentieth day; that is to say, that in severe cases where the blood-letting was practised in the first ten days, in the manner indicated, it appeared to have abridged the progress of the affection three days. The effect of the loss of blood was very nearly the same in those subjects in whom the affection was slight; so that in those who were bled from the first to the tenth day, the mean duration was twenty-five days, or three days less than in analogous cases in which no bleeding had been practised. The mean duration was about thirty days, in those in which the first bleeding was not performed until from the tenth to the twentieth day. Practised in the first ten days of the affection, blood-letting appeared to abridge its course, whatever might be the degree of its severity or mildness; but employed after this period, it appeared to be more injurious than useful in those cases where the disease was mild. There appeared to be no difference in the mean duration, whether the blood-letting was accomplished by the lancet or leeches. Four patients bled from the first to the tenth day, in whom the affection was severe, took tonics from the fifteenth, twenty-sixth, and twenty-eighth days, and the mean duration of the disease was thirty-three days; precisely the same as in analogous cases in which blood-letting had not been performed, and three days longer than in those cases collectively where the blood-letting was sufficiently abundant in the first ten days of the affection.

As to the immediate effects of blood-letting, it was not more decisive in those who recovered than in those who died. Thus in the

third part of those who were bled in the first ten days of the affection, the pulse remained stationary the day following the operation; it was a little more accelerated at the same period in an equal number of subjects; while its quickness diminished some pulsations in the others but for a few days only. It did not present any appreciable change the day after the bleeding, in those cases where it was only practised from the tenth to the twentieth day; and in the small number of subjects who were not bled until after the twentieth day, the quickness of the pulse augmented or diminished the day following in an equal number of cases.

In a very great majority of those where the blood-letting was practised from the first to the tenth day, the heat was stationary twelve or twenty-four hours afterwards; it augmented in two subjects, and diminished in another. It did not present any appreciable change in three-fifths of those who were bled from the tenth to the twentieth day; it appeared to be diminished a little in the most part of the others, for a short time only; and it augmented, as did the quickness of the pulse after each bleeding, in a subject who was bled three times before the fourteenth day of the disease.

Blood-letting did not in any case diminish the delirium, the somnolency, nor the stupor; in the most part, on the contrary, these symptoms were more decided on the day following, than on that when the blood-letting was practised. In two individuals the delirium commenced eleven hours after blood-letting.

The abdominal pains ceased the day after blood-letting was employed, in three cases; the reverse took place in two others, or the pains commenced at this period.

The tympanitis augmented considerably, in two subjects, in the same circumstances. The stools were also less numerous in five cases, after the first or second bleeding; in another, the day after the application of leeches to the anus. They diminished after the application of leeches to a seventh subject, and were stationary in the others. The tongue did not present appreciable changes the day following blood-letting, in one-half of the subjects; and in the other half it was either more moist or more dry, in very nearly an equal number of cases.

The author closes his observations on blood-letting with the following summary conclusions:—

"The facts collected under this head would seem to indicate, 1st, that the immediate effect of blood-letting, or that which could be observed on the day succeeding the blood-letting, on the condition of the symptoms of the typhus affection, was nothing, or almost nothing, or at least that it was not evident;

2d, that blood-letting practised twice, in the first ten days of the affection, had the effect of abridging a little the course of the disease.

"But did blood-letting arrest from death any of those patients who recovered? The preceding observations would seem to indicate that it had, for if the emission of blood could abridge from three to four days the duration of the affection, it accomplishes this object, doubtless, in modifying the lesions on which the disease depends; in arresting, perhaps, those of whom the progress would have been fatal, and in diminishing the liability to secondary lesions, which become, in many cases, the true causes of death, and an examination of those cases in which the issue of the disease had been favourable or unfavourable, seems to confirm this view of the subject.

"Of eighty-one subjects who experienced severe symptoms, and who were bled, thirty-nine, or nearly the half of them, perished. Of twenty-eight in whom the affection presented the same character, and who were not bled, thirteen, or nearly one-half, died.

"This first result, as many of those which precede it, seems to indicate that the emissions of blood had not an appreciable result on the mortality of the disease.

"But of twenty-nine patients who were bled twice, from the first to the tenth day of the disease, twelve only perished, or about four-tenths; that is to say, that, treated in this manner, the disease was rather less frequently mortal in the whole of the cases where blood-letting had been practised, than in those where it had been abstained from entirely.

"Of the fifty-two other subjects who were also bled, some were bled in the first ten days of the affection to the extent of at least twelve ounces; the others after this epoch, and lost for the most part, (the six-sevenths of them,) from twenty to twenty-four ounces of blood, some of them more. Of the first, who were fourteen in number, seven or the half perished; and of the second, who were thirty-eight in number, twenty died.

"It appears then, 1st, that bleeding practised in the first ten days of the disease, to the extent of twelve ounces, and repeated twice in severe cases, has saved the lives of some individuals; because, among the subjects not bled, the number of those who recovered was not superior to the number who died, but to about one-fourteenth; and that among those who were bled in the manner indicated, this excess in the number who recovered was one-sixth; 2d, that the blood-letting performed at the same period, but only once and to a less extent than twelve ounces, was without effect; 3d, that it was injurious when practised for the first time from the twentieth to the twenty-fifth day, and sufficiently freely. Thus, under some of the points of view in which we have considered the facts, we see in blood-letting a therapeutic agent of some utility in the course of the typhus affection, when it is practised and repeated at a period proximate to the commencement of the disease."

Of Tonics.—1st. *In those subjects who died of the typhus affection,* eighteen patients took tonics; the mean duration of the disease was thirty-five days less a quarter in them; twenty-six days only in those individuals who were placed under circumstances the most favourable in appearance to the loss of blood, were bled, and did not take tonics;

in fact, it would seem at the first view, that tonics exercised a great influence on the duration of the disease, having prolonged for a decided period the lives of the patients to whom they were administered. But this influence, much less in reality than in appearance, requires, in order to be properly appreciated, that we should enter into some details. The tonics were not always administered in such a manner that their action could be appreciated, precisely in the point of view under consideration; this was the case in all the patients who did not use them until within the last few days of life, when they were so bad that they could not hope that any remedy whatever would be useful to them, and also in those who only took them for two or three days. In subtracting these cases from the sum total, and in preserving for the present consideration, those only where tonics had been administered six or eight days or more in succession, there remain thirteen subjects, in whom the mean duration of the affection was thirty-six days and a quarter; that is to say, that the mean duration of the disease in those which had taken tonics for a period of time more or less considerable, was to that of those individuals to whom they had not been administered, as thirty-six to twenty-six days.

But this relative difference of the medium duration, is considerably too great, for this two-fold reason, that the first term is too great, and the second is too small. The first is too much enlarged, since three of the patients who had taken the quinine commenced at an advanced period of the disease, or from the twenty-sixth to the thirtieth day, and in retrenching them from the thirteen cases just indicated above, the mean duration of the affection did not exceed thirty-two days and a half. The second relative term is too small, inasmuch as it was formed, in a great part, of individuals carried off too rapidly to have taken tonics; so that in subtracting from the mass of subjects those of this description, or those who died from the eighth to the fifteenth day of the affection, this second will become twenty-nine in place of twenty-six; and the relative mean duration of the disease in those who had been treated by tonics, and those who had not taken them, is as thirty-one days and a half to twenty-nine. We must therefore conclude, making allowance however for any mistakes which may arise from the limited number of facts, that tonics were useful in the cases in which they were exhibited, in retarding for some days the fatal termination.

But among the patients who took tonics, some had been bled, and others had not; and in the first, to the number of five, the mean duration of the affection was thirty-four days and a half, while it was

only thirty in the others, that is to say, that without ceasing to be generally useful, in the cases where they had been administered during a certain space of time; the tonics were more beneficial in the subjects bled, than in those who had not been.

2d. *In subjects of the typhus affection who recovered*, tonics were prescribed to eighteen patients out of fifty-seven in whom the affection was severe. The mean duration of the disease in them was thirty-four days, and in those who did not take tonics, thirty-four days and a half, a difference which might be overlooked without any sensible error; so that it results from this first view, that tonics had no appreciable effect on the mean duration of the affection. But seven of the individuals whom we have regarded as having taken tonics, either took them for too short a time, or took them too late, (from the twenty-fifth to the thirtieth day of the disease,) to be considered as embraced in those which ought to concur to form the mean duration; subtracting these from the number, and then the mean duration will be thirty-one days and a half, or less by seventy-two hours. Of the eleven remaining subjects, eight were bled at various periods of the disease, three were not; and the mean duration of the affection in these was only thirty days, although the symptoms had not been less severe than in many cases where blood-letting had been prescribed.

Of Blisters.—1st. *In those subjects who died of the typhus affection*, the greater number had blisters applied to the inferior extremities; they were abstained from in others on account of the absence or the slight development of the cerebral symptoms; and in retrenching from the first those who were reduced to the last extremity previously to the application of the blisters, the mean duration of the disease was the same in both classes, or twenty-six days. The effects of blisters on the individual symptoms were observed in about half the patients on whom they were applied. The heat generally diminished temporarily the day after their application, in a fourth part of the cases; it appeared, on the contrary, augmented in a like number; and did not present any appreciable change in the others.

The immediate influence of blisters on the state of the circulation in the above cases was not more evident. The pulse was a little less accelerated the day after the application of the blisters, in six subjects; a little more accelerated, on the contrary, in a like number; and it did not present any appreciable difference from its previous state in the others.

The cerebral functions did not present any appreciable changes in a majority of the cases, or near two-thirds. Of the ten others, two had a cessation of the delirium and of the jactitation the day fol-

lowing the application of the blisters; three in which the symptoms exhibited more intensity; and in three others the somnolency and stupor made continued progress, as might be remarked of many other symptoms, whatever means were opposed to them. The examination of the digestive functions led to the same result; in fact, "in whatever light blisters might be viewed, they were found to have produced no sensible effect either on the duration of the affection or the progress of the symptoms in the fatal cases."

2d. *Of the application of blisters in subjects attacked with the typhus affection who recovered.*—To ascertain the influence of blisters on the progress of the disease, the author makes a comparison in the first place between those patients, who, having been bled, took tonics; and those to whom they were not administered. In those cases where bleeding and blisters had been prescribed, the mean duration of the affection was thirty-five days; it was only thirty in those who were restricted to blood-letting, so that in fact at first view, the blisters appeared to have been injurious.

But this conclusion is far from being rigorous, the affection having been much more severe generally in the first subjects, than in the second. In those who took tonics, all more or less severely affected, the difference was analogous, but much less so, one day only; so that, if a general conclusion could be deduced from so limited a number of facts, it would be, that blisters are injurious by retarding the convalescence of patients; this does not surprise us, since the lesions of the skin, more or less profound, which result from their repeated application to a part, clearly evince their morbid action, slight, it is true, but joined to one, or often many other affections existing at the same time in the system, it is difficult to conceive how they can accelerate the favourable termination of a disease.

In regard to the immediate effects of blisters.—The heat was observed with care the day and that following their application; in twenty out of thirty cases where they were applied, a slight change only was observed in two patients, it was diminished in one, and augmented in the other.

The pulse in every case was studied in the same manner; the number of pulsations was augmented ten strokes in two patients; six in a third, on the day succeeding to their application; it was stationary in the others, or only presented slight differences, which were equally observed at every period of the affection when noticed daily, where diluents only were administered.

The delirium disappeared the day after their application in one case, where it had existed in a slight degree for four days; the de-

lirium, somnolency, and stupor, increased in five others. In the remaining cases the state of the cerebral functions was stationary.

The slight changes observed in the temperature and the cerebral functions existed in a larger proportion in those patients to whom blisters had not been applied; whence it results, that they had no appreciable immediate effect in those patients who recovered, except that, perhaps, they retarded a little their convalescence.

"If such, in fact, is the result of experience, blisters ought to be banished from the treatment of the typhus affection, especially as no one is ignorant of their mischievous effects; the loss of skin which they occasion, and the slowness with which their surfaces heal in many cases. Useless in re-establishing the cerebral functions, they concur on their part to maintain or augment the febrile excitement, and its fatal consequences; their effect as a derivative mean in many of the inflammations which declare themselves in the course of the typhus affection, is more than doubtful, after what has been observed above; an inflammation, but moderately extensive of an organ, causes, almost inevitably, one or more inflammations in its course. In fact, that under whatever point of view blisters might be regarded, they were always found inconvenient in this affection, without affording any advantages which could counterbalance these effects.

"Tonics applied to the blistered surfaces of a bad aspect, changed rapidly their colour, caused their cicatrization in a very short time, and afforded an additional proof of the benefit which ought to result from the use of bitters in certain internal inflammations at their advanced stage; and especially in the typhus affection under the circumstances indicated above; because there is, most generally, a relationship existing between the state of the blistered surfaces, and that of the elliptical plates of the ileum, inasmuch as when these are more largely ulcerated, so are the blistered surfaces bad in appearance, and more disposed to ulceration."

On the application of ice to the head.—From one to eight pounds of ice were applied to the head, ordinarily frequently repeated, in ten subjects in whom the affection had a fatal termination, where the delirium had resisted different therapeutic agents, (blisters, sinapisms, leeches to the neck;) and, with the exception of three cases, no change in the state of the cerebral symptoms followed its employment. The somnolency was a little less than before the application of the ice in one of the cases; there was a little more calm the night following in another; and, while the ice was applied to the head, the third patient replied yes and no, which he had not done before. It should be noticed, also, that—

"In seven of the subjects to whom it was applied, the employment of the ice was combined with the application of leeches, sinapisms, blisters, and even general blood-letting in some; means which are generally regarded as having more or less success, and the inutility of which tends at least to prove that, at

a certain period of their course, the diseases pursued their progress with an obstinacy on which our therapeutic agents exerted an influence extremely limited."

Two of the patients who recovered had ice applied to the head. The delirium which had existed for six days in one of them, diminished on the next day after its use; a diminution which would, perhaps, equally have taken place, had the ice not been applied; the delirium having attained, at this period, the most ordinary limits of its duration. There was no amelioration of the delirium in the other subject in spite of the united effects of ice, of derivatives, and of leeches to the neck.

To do justice to the present work, we ought, perhaps, to follow the author in his general treatment of the typhus affection; but as this part abounds more in remarks and deductions than facts, we shall not trespass longer on the reader's patience, but close our imperfect analysis of this highly interesting work; which we present to the profession as a model of medical research, worthy of imitation. On all occasions we have endeavoured, as far as practicable, to exhibit the facts and observations of the author in his own phraseology; and shall conclude with this remark, that if every morbid affection were investigated with the same ability and accuracy, and the results detailed with the same candour which are evinced in this work, by those to whom is confided the medical charge of large clinical institutions, a flood of light would beam upon medical science, which would enlighten many parts of it, now apparently enveloped in almost impenetrable darkness.

J. Barnes, M. D.

BIBLIOGRAPHICAL NOTICES.

XVII. *Encyclopädisches Wörterbuch der medicinischen Wissenschaften. Herausgegeben von der Professoren der medicinischen Facultät zu Berlin;* C. F. von GRÆFE, C. W. HUFELAND, H. F. LINK, K. A. RUDOLPHI, E. von SIEBOLD. Erster Band. 8vo. pp. 675. Berlin, 1828.

We should have presented an account of this first volume of the Encyclopedic Dictionary of the Medical Sciences some time since, but for the unfortunate loss of the copy forwarded by our respected correspondent, Professor OSANN, whose letter by the same conveyance came safely to hand, though the book has never been received. Having, through the kindness of a friend, procured sight of another copy, we are enabled to give a brief account of its character.

In addition to the editors, whose names are above mentioned, the Encyclopedic Dictionary is to be enriched by contributions from a great number of the most active and distinguished of the profession in Germany. The object they propose to accomplish, is that of presenting a substantial account of the actual state of knowledge of all subjects important to the profession, and within the limits of a comparatively few volumes, to supply practitioners distant from great cities and public libraries, with an authoritative book of reference. To effect this, the editors have resolved to make it a scientific condensation or review of the subjects presented, without losing sight of its character as a dictionary: to treat of all scientific subjects necessary to the profession, at the same time carefully avoiding prolonged and excursive dissertations, which usually swell works of this kind to an inordinate volume; give short histories of the actual condition of knowledge, with an indication of the sources of literary aid for its acquisition, and by explanations of technical, as well as antiquated, though not entirely obsolete words, to aid in the better comprehension of the more ancient writers. The work, it is believed, will be comprised in 28 vols. 8vo. and be completed within six years from the commencement of its publication.

We have examined most of the interesting articles contained in this volume, and think they may be advantageously compared with similar articles of the Medical Dictionaries previously in our possession. In conciseness and condensation, they are generally praiseworthy, conveying the needful information in a clear and energetic manner. Even where, from the nature of the case, the article is long, judicious arrangement of material and perspicuous statement of details, free them from the tediousness so justly complained of in some other scientific dictionaries. The compilers of the work before us have, unquestionably, profited extensively by the labours of their predecessors, but there is nothing like servile copying, or imitation in any respect.

The articles on mineral waters from the pen of OSANN, are characterized by much originality and indefatigable industry of research. The physiological observations of RUDOLPHI, those of von SIEBOLD on obstetric subjects, and those on topics connected with materia medica and practice by the venerable HUFE-

LAND, are very valuable and well suited to maintain the respectability of the work. Some of the writers occasionally indulge in general disparaging observations on BROUSSAIS and other systematists, in the bad taste, commonly characteristic of mediocrity of talent and acquirement.* Among the surgical articles, that on Paracentesis, *(Abzapfen,)* by Dr. Baltz, a regimental surgeon of Berlin, is interestingly instructive, and highly creditable to the author.

The "literature" appended to the articles is mostly copious, but the notices are not brought down to as recent a period as might have been expected, especially in a work published subsequently to SCHREGER's excellent Elements of Surgery.† However, as the work is expressly intended for Germans, the references to foreign works were restrained to those most immediately necessary, rather than extended to all the writings on the different subjects. The Encyclopedic Dictionary, if completed according to the model of the first volume, cannot fail to become a valuable work of reference, and an useful addition to the medical library. J. D. G.

XVIII. *Pathological Researches into the Nature and Treatment of Dropsy of the Brain, Chest, Abdomen, Ovarium, and Skin; in which are demonstrated the Inflammatory Origin of these Diseases, and the General Facility of their Cure under a new and greatly Improved Method of Treatment.* By JOSEPH AYRE, M. D. Member of the Royal College of Physicians, &c. London, 8vo. pp. 287.

This is the second edition of a book which we think furnishes a most rational exposition of the pathology of a class of diseases so dangerous, and of such ordinary occurrence, that the physician must be very reprehensible who omits any opportunity of acquiring a knowledge of their nature, and the best modes of treatment. The views exhibited in the present treatise must, we believe, eventually tend to remove dangerous errors in theory, and lead to modifications in practice at once more safe and more efficacious than the modes of cure which have been most commonly pursued; for dropsies, like many other diseases, have been too often treated according to a blind routine.

The idea usually attached to the term dropsy is that of a watery accumulation in some part or cavity of the body, but our author, who regards the effusion as only a symptom, or one of a series of effects arising from a morbid condition of certain tissues, would employ the term in a much more comprehensive sense. Rejecting the common explanations in which the causes of dropsical effusions are chiefly referred to loss of tone in the exhalent and absorbent systems, or mechanical obstructions arising from diseased liver, or other viscus, he attributes them to a morbid action in the cellular tissues, allied in its nature to ordinary inflammation, and subject to the same laws. "It is," says he, "a well known property of common inflammation to be suddenly translated from one part of the system to another, which is termed a metastasis. This property is also observable in the action producing the serous effusion; and, although it has been supposed to be only the fluid which is thus suddenly removed from one part of the body to another, it is, unquestionable, that, in these cases at

* See the article Blood-letting, *(Aderlass,)* p. 387.
† See American Journal of the Medical Sciences, Vol. I. p. 414.

least, the metastasis is exclusively of the action which produces the serous discharge. The action likewise occasioning the effusion, as seen in anasarca, usually commences at a given point, and is gradually extended thence in a continuous course, analogous to what occurs in inflammation, and particularly in the erysipelatous kind, to which it bears a very strong resemblance, and into which, indeed, it is easily convertible."

The variety observable in the effused fluids, our author explains by a reference to the results of common inflammation varied by its greater or less intensity. The lowest degree occasions an increase in the quantity of the proper fluids of the part. In the mucous membranes the product is a mucous fluid, whilst in the cellular and serous, the secretion is limpid, consisting chiefly of serum more or less charged with albumen. A higher degree of inflammation yields coagulable lymph, and one still higher pus. As the inflammatory action abates on the occurrence of the effusions, these are looked upon by our author as in some degree remedial, similar to the suppuration of a phlegmon, or the vesication arising from the application of cantharides, both which occurrences are followed by a subsidence of the pain, just as we observe in the extremities on these becoming anasarcous.

The vascular excitement in the serous tissue may be, 1st, sub-acute or chronic; 2d, symptomatic or idiopathic; that is, arising either from some particular disease, or the common causes of inflammation, which causes may be either general or local; 3d, the serous inflammation may be either local or general, giving rise to a general or local effusion.

Thus much in a general way relative to the pathology of this class of diseases. In treating upon the particular forms of dropsy, our author makes the following observations.

"When the discharge takes place into the brain, it may occur either as an incidental effect of that acute inflammation of the organ, which answers to the phrenitis of nosologists, and of which the proper morbid result is coagulable lymph; or under its proper form of serous inflammation, when, relatively to phrenitis, it will be in a sub-acute or chronic state, with the watery effusion as its natural product. It may be either idiopathic or symptomatic. When the former, it may be induced by a general state of the system, answering in its nature to the scrofulous diathesis, &c. When symptomatic, it may arise from some structural disease within the head; or, secondly, from some relative weakness of its venous system; or, thirdly, from a distant irritation in the digestive organs. When the attack of the disease proceeds from the first of these causes, it is usually severe, and answers in its symptoms to the water stroke of the German writers. When from the second, the disease corresponds to the serous apoplexy of systematic writers; and, as it respects its approach, is usually chronic, though generally sudden in its termination, by the arterial reaction being rapidly, sometimes instantly, succeeded by the effusion. When it proceeds from the third cause, the turgescent state of the brain, which gives origin to symptoms that simulate those of the true disease, arises as a direct effect of chylopoietic disturbance, and is remediable, until arterial reaction commences, by means directed solely to its remote cause."

The treatment founded upon these views should be adapted to the following

indications, namely, to remove the causes, and correct that turgescent state of the brain, which may produce the arterial reaction and effusion; and, secondly, of those which shall subdue the excitement when formed; thirdly, to correct or relieve, as far as practicable, the effects of the effusion; and procure, if possible, its absorption. Dr. Ayre judiciously disapproves of the general and free use of calomel in this disease, which medicine, he thinks, should never be administered except in cases of functional disturbance in the liver, or other chylopoietic viscera, when in conjunction with local bleeding, &c. it may afford most important service. "The cases reported of its great success in this disease, have," says he, "been examples of this form of it; and conclusions respecting the suitableness of the treatment by mercury, under all circumstances of the disease, have thus been hastily and erroneously drawn." Dr. Ayre considers the symptomatic form of hydrocephalus more common than the simple inflammatory, and acknowledges the difficulty which often arises of distinguishing between them, disturbance in the brain often producing disordered secretions from the liver, and other chylopoietic organs. Without enumerating the various remedies pointed out by our author, we will barely mention that he considers mild aperients much more suitable to this disorder than those of an active nature. He cautions against the discontinuance of medical treatment immediately on the occurrence of what appear to be symptoms of effusion, since these are frequently observed to lose their factitious character, and suddenly disappear under the employment of means nowise adapted to such a state.

Our author has done little towards removing the obscurity which attends upon visceral diseases of the chest, and often renders it so extremely difficult to determine their precise seat. A chronic disease, for example, seated in the serous tissues investing the heart, or lungs, &c. will afford, in general, but very indistinct indications of the mischief to which they are leading, until, by the extension of the chronic inflammation to the outer serous membrane, an effusion begins to take place. In ordinary cases of hydrothorax, general blood-letting will not be requisite, local depletion, combined with blistering, being best adapted to correct that chronic action of the serous membranes which leads to effusion. Dr. Ayre lays great stress upon the important advantages derived from the application of leeches, cups, blisters, &c. upon surfaces contiguous to organs affected with the chronic inflammation which tends to effusion.

In regard to the connexion so often subsisting between diseases of the liver and dropsy, our author observes, that, analogous to what occurs in the thorax, the chronic excitement of the serous membrane, investing the organs, or lining these cavities, is generally kept up by a corresponding state of the diseased viscus; and that, therefore, local depletion by cupping or leeching is necessary to both, and will often succeed in reducing the primary disease into an indolent state, and thus put an end to the secondary one depending on it.

Dr. Ayre regards the practice so general of administering mercury in abdominal dropsy, as founded upon erroneous pathological views, and as frequently productive of very injurious effects. He considers the condition of the system induced by salivation, as allied to that which prevails in dropsy, and thinks it not improbable that the mercurial inflammation, when considerable, may survive its specific cause, and degenerate at length into the purely hydropic state.

Such is our author's opinion of the use of mercury pushed to salivation, but when given in minute doses, so as to avoid this morbid condition, he thinks it capable of becoming highly useful.

Dr. A. approves of the employment of drastic purgatives in ascites, which he thinks may not only prove beneficial by assisting to carry off the water, but by producing a counter-action in the mucous membrane of the bowels, which may tend to relieve the serous tissue investing them from the morbid action which caused the discharge, and even exert a similar effect upon the primary affection of a viscus that may have produced or prolonged the disease. He prefers the gamboge, given in four or five grain doses, triturated with the same quantity of some aromatic powder, and a few grains of the crystals of the super-tartrite of potash. In urgent cases the dose of gamboge may be increased to ten or twelve grains, to be repeated, should the patient's strength admit of it, once in four or five days. This practice, he states, is generally borne better in ascites than in hydrothorax, and is sometimes inadmissible in ascites, where, from some affection of the mesentery or viscera, there occurs a tendency to diarrhœa which is often distressing.

As diuretics, he relies almost entirely upon the dried squill and digitalis, given in small doses, namely, rather less than a grain of the former, and only the sixth part of a grain of digitalis, administered every third or fourth hour. These apparently small portions he pronounces, from extensive experience, to possess all the efficacy of the largest doses, and none of their danger. To render them still more diuretic, he recommends a third or half grain of calomel every night, together with an infusion of dandelion, or some other diuretic decoction, *ad libitum*, as a common drink. He must not, however, be mistaken as recommending among these that popular beverage, gin punch, which he says, though it sometimes assists in carrying off the water, yet tends to perpetuate the remote causes of the effusion. The same observation we think applicable to most other diuretics.

He condemns the use of barks and other tonics so popularly employed in some dropsical affections, and cautions young practitioners against the error into which they are apt to fall, of estimating the degree of danger in anasarca, and the necessity of active treatment, by the single consideration of the extent of the œdematous swelling, and of treating it accordingly. "For this disease," says he, "when idiopathic, and arising from cold, although highly formidable in appearance, from the very considerable degree of œdema, is, when properly treated, of little account when compared with some of the other forms of the disease; and in many cases, the more considerable are the swellings, the more secure will be the important cavities from being implicated in the affection; since the effusion will be the more likely to have served as a remedy to its cause."

The operation of tapping Dr. A. regards as a necessary evil. The chief objections he urges to its employment are, the danger incurred where there is much visceral disease, of its causing a destructive form of inflammation in the peritoneum; with the probability of its occasioning, under the most favourable condition of the disease, a more rapid renewal of the serous accumulation. He therefore thinks that the operation should never be resorted to until the most ample trial has been made of all the various means regarded as useful for the

removal of the water and its causes, and where, from the failure of such means, the accumulation has occasioned a pressure upwards, threatening serious disturbance to the breathing, with other bad consequences. When the operation becomes indispensable, he premises it by giving a few grains of gamboge, or some other drastic purgative, the day before, which he thinks will serve to lessen the tendency to serous inflammation in the peritoneum. "Six hours after the operation, a few leeches should be applied to the abdomen, and a small blister on each side of it, and repeated as early again as the condition of the skin will allow. At the same time the several remedies in use previous to the tapping should be continued, &c."

The value of Dr. Ayre's book is enhanced by the subjoined cases, some of which detail the morbid appearances observed after death, whilst others demonstrate the permanent success which has attended the treatment he advises in hydrothorax, ovarian, and other forms of dropsy. G. E.

XIX. *Napoléon a Sainte-Hélène. Opinion d'un Médecin sur la Maladie de l'Empereur Napoléon et sur la Cause de sa Mort, offerte a son fils au jour de sa majorité.* Par J. Hereau, Ancien Chirurgien ordinaire de Madame Mère et Premier Chirurgien de l'Impératrice Marie-Louise. Paris, 1829, pp. 228, 8vo.

The work, whose title we have just given, has excited no inconsiderable interest, as well on the continent of Europe as in Great Britain, and has been the subject of the most contradictory opinions. The continental writers, and particularly those of France, yield implicit confidence in the facts and deductions of the author, whilst in England, on the contrary, he has been decried as having been instigated by party or selfish views, and as being rather a factious and designing politician than a sound medical writer. This discrepancy of sentiment might however have been anticipated, on the ground of national prejudice and hereditary antipathy, as well as personal feelings towards Napoleon, which it has been impossible for either party wholly to lay aside.

Of the conduct of the British government in consigning the Emperor Napoleon to a prison on a distant and unhealthy island, we do not deem this a proper occasion to speak: but that the whole tenor of conduct pursued towards him, had a strong tendency to shorten his days, must be allowed by the most strenuous advocate of their policy.

The event of his death is of too recent occurrence, for any one to forget the sensation it occasioned, and the numerous reports and surmises this intelligence excited amongst all classes of society. Since that time the press has been unusually prolific in accounts of his life and decease, from the voluminous and fascinating work of the great Scottish novelist, down to the mere pamphlet of the hour, all of which differ in a greater or less degree in their details. This might reasonably be expected, when even the official reports of the physicians who attended him from the time he gave himself up to Captain Maitland, until his final release from vexation and suffering, are so extremely contradictory and unsatisfactory as scarcely to be reconcileable with each other.

M. Hereau is however of opinion, from the position he occupied in the family of the emperor, the numerous and friendly relations he always enjoyed

with those physicians and officers who had been constantly with him at all times and in all climates, and more particularly with the individuals most in his confidence while at St. Helena, that he is peculiarly well fitted to solve all doubts, rectify all errors, and to make known many circumstances hitherto unrevealed. This is certainly promising much, but we think that he has been successful in redeeming his pledge in a considerable degree, and with more impartiality than we anticipated on first taking up the work. That he is biassed by both his political and medical doctrines, cannot be denied; the work, however, displays considerable research and industry, and is valuable as affording a condensed view of the progress and termination of an insidious, but fatal disorder, with the effects of medical treatment on it, as well as an historical record.

Not wishing to extend this article beyond all due limits, we shall endeavour as succinctly as possible, to give an analysis of each of the chapters of M. Hereau's treatise, accompanied by a few observations.

Chap. 1st. Was the emperor poisoned? That such was supposed to be the case by great numbers of persons both in Europe and this country, before and even after the official accounts of his disease were promulgated, is a fact well known. M. Hereau acknowledges that he partook of this opinion for some time, but abandoned it on investigating the matter more closely. He gives an extraordinary anecdote respecting Napoleon's intention of commiting suicide by means of poison, which he carried about his person for a length of time. With all due deference to our author, and the authority from whom he derived his information, this account appears to us to be highly improbable, and much on a par with that of his attempting to put an end to his life at Fontainbleau in 1814.

Chap. 2d. Is the disease of which it is asserted the emperor died, hereditary in his family? This malady, was a cancerous condition of the stomach, and it was supposed to have been hereditary; this latter idea was derived from the emperor himself, as he mentioned to his attending physician, that his father had fallen a victim to cancer of the pylorus. These circumstances are most strenuously and ingeniously combated by M. Hereau. He observes, that it is incontestibly proved, that none of Napoleon's immediate ancestors fell victims to this complaint, with the exception of his father, and that even his case admits of considerable doubts. That the emperor bore but little resemblance in character or constitution to his father, whilst, on the contrary, the similarity in these respects between him and his mother was astonishingly great. To the above may be added the fact, that none of the rest of the family have ever been affected with any symptoms of this painful and fatal disease. The only complaints from which Napoleon appears to have suffered, previous to his confinement at St. Helena, were dysuria and cutaneous affections; from the first of these he often experienced considerable inconvenience, so much so indeed as to be firmly persuaded, that, like Peter the Great, he would ultimately fall a victim to its violence. Of the cutaneous eruptions, one was the itch, which he contracted at the siege of Toulon, from using the rammer of an artillery-man, affected with this complaint, who was killed near him; the other was a leprous eruption which attacked him, in common with many of his troops, whilst in Egypt; this was cured by the use of vapour baths, but again took place during the time he commanded the army of Italy; it suddenly disappeared during

the campaign of Wagram, in consequence of which he was attacked with fever and other symptoms of a suppressed cutaneous disease of long standing. This disease finally made its appearance with increased violence whilst he was at St. Helena. We have mentioned these circumstances, as it has been asserted that the disease in his stomach arose in a great measure from a suppression of these eruptions.

Chap. 3d. Was the influence of the climate sufficient to occasion the disease of which the emperor died? M. Hereau is of opinion, in common with a great number of others, that the climate of St. Helena had a decidedly prejudicial effect on the health of Napoleon, and adduces many reasons for this assertion. In fact, all the writers who have described his residence at Longwood, agree that its situation, (to say the least,) was ill chosen, being continually subject to fogs and tempests; this is conceded even by those who have given the most favourable views of the island. The emperor was not the only sufferer from the effects of the climate, as almost all his attendants were attacked, in a greater or less degree with acute and chronic inflammations of the intestines, and the sickness and mortality among the troops were very great. This unpleasant state of the weather, and the restrictions imposed on him, occasioned a great disinclination in Bonaparte to take such exercise, as from his former habits of activity and exertion, was absolutely necessary to his health. M. Hereau appears to be firmly convinced that this place was chosen by the British government on account of its insalubrity, in order slowly but surely to put an end to his existence; this idea we know was also held by Napoleon himself; but from all the accounts of the island which had hitherto been given by travellers, it is but reasonable to believe the declaration of Lord Keith, that St. Helena was selected for its locality and its general advantages, as a place from which escape was almost impossible. Had they wished him to have been speedily carried off by an unhealthy climate, many spots better suited for the purpose, could have been selected, from which an attempt at escape would have been fruitless.

Chap. 4th. Had the restrictions and treatment to which the emperor was subjected, any effect on his disease and death?

We pass over the first of these subjects without other remark, than our perfect concurrence with the author, that they must necessarily have exercised a baneful effect on Napoleon's health.

With regard to the disease of which he died, and the medical treatment to which he was subjected, as well as the opinions of different physicians, it is no easy task to arrive at a clear understanding, from the extreme discrepancy of sentiments entertained by these gentlemen. M. Hereau gives an analysis of their reports at some length, accompanied by some very severe, and we are sorry to say, in many instances, merited censures on their diagnosis and subsequent treatment. We shall follow our author in this analysis in as few words as possible, leaving our readers to draw their own conclusions, premising however that M. Hereau is a strenuous and zealous advocate of the physiological school of medicine, and of course views what he terms the perturbing practice in great abhorrence.

It appears that towards the end of July, 1816, ten months after Bonaparte's removal from the Briars to Longwood, he first began to complain of an uneasy feeling in his stomach and right side, this state of things continued alternately

better and worse until September when symptoms of scurvy were superadded to them, and in November he was attacked with œdema of the feet and legs, with engorgement of the lymphatic glands in the groin. These symptoms, with occasional head-aches and diarrhœas continued until October, 1817, without his submitting to any regular course of treatment; about this time, Mr. O'Meara suspected that his liver was affected, and prescribed purgatives, which were taken, but without producing any good effect, as the disease increased in violence until the time of this gentleman's dismission by Sir H. Lowe, in July, 1818; on his arrival in Europe, his account of the emperor's complaint was submitted to a consultation of physicians at Rome, who also decided that the disease was obstruction of the liver, with a scorbutic diathesis; the same opinion was entertained by Dr. Stokoe, who attended Napoleon after the departure of Mr. O'Meara. In September, 1819, M. Antommarchi, sent out by Cardinal Fesch, with the permission of the British government, arrived at St. Helena, fully convinced that the emperor was affected with hepatitis; this idea he thought was fully borne out by the symptoms he observed on visiting his patient, and a course of treatment was followed to combat this disorder, consisting of purgatives, &c. without producing any good effect, but on the contrary, appearing to aggravate the disease until April, 1821, when Dr. Arnott, after a careful examination, affirmed that the liver was not the seat of disease, but that it was located in the stomach. Napoleon himself was fully impressed with the opinion that such was the case, and often requested that an examination should be made after his death, in order to verify the fact. The malady continued growing worse until the 5th of May, when death ensued.

Such, in a few words, was the progress of the disorder, and from an attentive review of the journals of symptoms kept by the different medical attendants, M. Hereau is decidedly of opinion that the complaint was a chronic gastritis, kept up and aggravated by the treatment pursued, which consisted of tonics, bitters, purgatives, ethereal syrups, and stimulating embrocations. A careful perusal of these journals, will, we are convinced, lead every unprejudiced reader to much the same conclusions. In fact, the whole train of symptoms most clearly demonstrated that the stomach was seriously and organically diseased, and we cannot help feeling some degree of astonishment, that a plan of treatment, which by their own accounts, was, to say the least of it, manifestly ineffectual, should have been persevered in to the last.

Chap. 5th. Reflections on the examination of the body of the Emperor?

Here, extraordinary as it may appear, there is a strange diversity of sentiment among the physicians who made the examination; they all agree, however, that the intestines and peritoneum displayed evident marks of inflammation, and that the stomach itself was ulcerated to a considerable extent, whilst the liver was comparatively in a sound state. M. Hereau is firmly of opinion, that this ulceration of the stomach was not of a cancerous character, but the natural result of a gastritis, kept up and aggravated by an erroneous method of treating it. His arguments on this point are extremely ingenious, and deserving of attention, but we have extended this notice too much to attempt to follow them.

According to one report, that of M. Antommarchi, the lungs, stomach, peritoneum, bladder, &c. were each in a state of morbid organization, sufficient to have occasioned death; whilst the other, on the contrary, declares that the sto-

mach was the great seat of the evil, and that the rest of the abdominal viscera were in a sound state.

In conclusion M. Hereau comes to the following results.

1st. That the emperor was not poisoned, as was generally supposed.

2d. That the disease of which he died was evidently chronic gastritis, a disease which has never been considered as hereditary; whilst the traces of inflammation on the stomach left by this disease have been most erroneously confounded with a cancerous affection.

3d. That not only the influence of the climate was sufficient to occasion the disease of which he died, but that it had so completely altered his constitution that this event was almost inevitable.

4th. That the vexations to which he was subjected under the title of restrictions, and above all, the errors of his physicians, hastened his death.

M. Hereau finishes by declaring it to be his decided opinion, that Napoleon's early death was owing to his being confined in an unhealthy island, aided by bad treatment from his physicians, and worse from the governor. R. E. G.

XX. *Recherches Anatomiques et Physiologiques sur les cas d'uterus double et de Superfœtation.* Par A. L. Cassan. Paris, 1826. pp. 84.

The author of the present little work has been at much labour to collect all the well-authenticated cases of double uterus, from which he has fully established the fact of their existence. The analogy of animals that present a similar formation, is stated, and from the observation of a great number of facts, the development of this peculiar conformation is thus detailed. "At the end of the sixteenth week, two small vermiform bodies are observed in the lumbar region; at a little more advanced period these two symmetrical parts approach and unite in the median line of the body and form the uterus and vagina." The philosophical views of MM. Geoffroy, Neckel, and Serres, receive additional confirmation from these cases. Every variety of partition of the uterus is noticed, from a partial division of the uterus by a membranous partition, to the complete separation of the uterus and vagina. These anomalies in organization appear to consist in the suspension of development before the two parts are united, or in persistence of development after their union.

The consequences of such configuration of parts are stated to be important in the first place to a state of pregnancy: a woman may become pregnant, be delivered of a child, and yet not cease to be a virgin; she may at the same time be pregnant and be in labour. 2d. As it regards menstruation, the author denies that the empty lobe would menstruate when the other contains a fœtus. 3d. It would explain some of the accidents which attend difficult labours, as when the partition of the uterus was horizontal, dividing the uterus into an upper and lower chamber, the partition must be torn through, or the uterus lacerated, this happened in two cases related by Drs. West and Olivier. 4th. As it regards superfœtation. The fact of a second conception being possible during the gestation of a first, is established by numerous cases cited by the author, and the only rational mode of explaining it is afforded by a reference of such cases to a double uterus. This little work will well repay the trouble of a perusal, as it abounds with interesting observations on a subject of philosophical inquiry.

J. M. P.

XXI. *Illustrations of the Diseases of the Breast, (Female.)* By Sir Astley Cooper, Bart., F. R. S., Sergeant Surgeon to his Majesty, &c. &c. In two parts. Part 1st, pages 89, quarto. Plates IX. London, 1829.

The very just distinction which Sir Astley Cooper has obtained by his success as an operator, and his contributions to the store of professional knowledge, together with his enduring and well-founded reputation, dispose us to receive from him, with peculiar pleasure, a work on so important a subject; and especially as we have the conviction of its deductions and statements being well guarded by a thorough and extensive experience.

The text of this work is very neatly printed, and as stated in our caption, occupies eighty-nine pages quarto. It consists in general descriptions of the diseases treated of, their methods of cure, and narratives of individual cases coming under the notice of the learned author. To the text is appended a fasciculus of nine plates, each one containing several figures illustrating the cases. These figures are very beautifully and carefully coloured, so as to reach as exact a representation as possible of their originals. They are upon the whole highly creditable to this department of British pathology, and we trust a token that it will not be permitted to languish, in that state of inaction, to which it seems to have been condemned for some years past.

The contents of part the first are—The effects of common inflammation in the Breast—Hydatid Disease—Chronic Mammary Tumour—Cartilaginous and Ossific Tumour—Adipose Tumour—Large and Pendulous Breast—Scrofulous Swelling of the Breast—Irritable Tumour of the Breast—Ecchymosis of the Breast.

In common inflammation of the breast, Sir Astley gives a decided preference to purging by repeated doses of castor oil or sulphate of magnesia. He recommends, however, the occasional application of leeches. Phlebotomy does not enter into his list of remedies; he indeed does not even mention it. In the adhesive stage, to prevent suppuration, he recommends as a local application, spirit of wine, an ounce, to five ounces of water, or the liquor plumbi dilutus. When suppuration has occurred, the application should then be fomentations of poppy decoction, or poultices of the same.

Among the causes of this complaint, Sir Astley ranks strong drinks, and the detention of the child from the breast. By the first, the mother is unduly stimulated, and by the last, the breast is kept in a state of irritation, by being permitted to remain full of a secretion, which would act as a useful aperient to the infant.

When suppuration follows in spite of the remedies used, if the abscess be seated superficially and the symptoms are not very severe, it is best to wait for a spontaneous opening for the discharge of the matter; but if the purulent focus be deep, and the local and general symptoms protracted and very painful, then the lancet should be used.

For the induration of the bosom which follows mammary abscess, Sir A. recommends the application of iodine ointment, or the emplastrum ammoniac cum hydrarg.

In regard to hydatids, our author speaks of four species, of which one only is malignant. Extirpation of the mammæ is the general remedy, though some

cases may be treated successfully by puncturing the cyst and causing an adhesion of its sides. In the instance of Lady Hewitt, whose breast was successfully excised, it had reached the enormous weight of nine pounds.

Chronic mammary tumour is by no means an unfrequent affection, as is well known to surgeons. It is recognised by being hard, superficial, devoid of pain, and of every other mark of irritation, and of a very slow growth. It consists of small lobules of fibrous matter surrounded by a sac of the same, and springs from the condensed cellular substance holding the lobules of the gland together.

Sir Astley's experience is that of others, to wit, that such tumours remain indolent for years, and then disappear. He does not recommend extirpation, as it is useless. As a discutient he recommends iodine ointment, or the emplast. ammoniac. cum hydrarg. When such tumours occur in virgins, they are frequently cured by the first pregnancy and the subsequent nursing. W. E. H.

XXII. *Journal of the Philadelphia College of Pharmacy.* Edited by Benjamin Ellis, M. D. Professor of Materia Medica and Pharmacy in the College, &c. Assisted by a publishing committee, consisting of D. B. Smith, C. Ellis, S. P. Griffitts, Jr. and G. B. Wood, M. D. Professor of Chemistry in the College, &c. Published by the College. Philadelphia, 1829, Nos. 1 and 2.

It is with no inconsiderable pleasure that we are called upon to notice the valuable publication now before us, alike creditable to the institution from which it emanates, and to the learned contributors whose labours fill its pages. Few institutions are calculated to be of more real utility than a well-conducted College of Pharmacy, and we feel some pride that our city should have been the first in this country to establish one. Of the good effects it has already produced, all who have attended to the state and progress of pharmacy here, will bear ample testimony, and we trust that ere long no druggist or apothecary will receive any support from public confidence who is not connected with this establishment.

Soon after its organization, the college made arrangements for the publication of a journal to be devoted to pharmaceutical researches: this undertaking was entrusted to a committee, with directions to issue a number whenever a sufficient quantity of matter should be presented.

In consequence, four numbers were published at long and irregular intervals, but the work was at last discontinued from various causes, the principal of which arose from a deficiency of original matter. The college, however, deeming that the wants of society and the profession demand a medium, by means of which knowledge of a valuable and important character should be widely disseminated, have again commenced the publication of a Journal, to appear quarterly, on a more comprehensive scale than their former undertaking, as it is now to embrace original and selected essays on all the branches of science connected with pharmacy.

The numbers now before us consist of original communications from different members of the college, and a variety of valuable articles selected from foreign journals. To enable our readers to judge for themselves of the nature and importance of the work, we will give a short analysis of them without further comment.

The first paper is on Copaiba, by Elias Durand. The author, after giving

the natural history of this oleo-resin, discusses its properties and preparations. Copaiba he says, "seems to be composed of an essential oil forming about one-half of its weight, a resin, a small quantity of acid possessing the characters of acetic acid, a fatty matter, traces of muriate of lime, and of a sweet substance." Its specific gravity differs according to its fluidity; it has generally been fixed at 0.950; some tried by Mr. Durand was of nearly the same density as water; it requires twenty-five times its weight of alcohol at 35° of Baumé's areometer to effect a perfectly transparent solution, but leaving a residuum; it wholly dissolves in pure alcohol, ether or the essential oils. When mixed with one-seventeenth of pure magnesia, it acquires a degree of solidity sufficient to allow it to be formed into pills. This mixture requires six or eight hours to thicken, and gradually becomes still more solid, with an increase of specific gravity to 1059. No other article, except perfectly pure magnesia, will accomplish this solidification. The other alkalies form saponaceous compounds, resembling gum Arabic, and capable of being suspended in water. This effect of the alkalies was proposed by the School of Pharmacy at Paris as a test of the purity of the article. The essential oil is obtainable by distillation. This oil is an excellent solvent of caoutchouc. Potassium is not affected by it. The resin, when reduced to dryness, is tasteless and inodorous; its medicinal properties are more than doubtful. As is observed by Mr. Durand, the disgusting taste of this valuable medicine has been a source of great annoyance to both patients and physicians. The essential oil has been used in France with great success; it has also been tried in this city with equally happy results: the best forms to exhibit it are those given by its introducer, M. Dublanc, Jr. ℞. Syr. Tolutani, ℥ij.; Aqua menth. pip.; Spirit ol. essen. cop. āā. ℥iij.; Ext. opii. gr. i.; M. Dose from three to six table-spoonsful a day. Or ol. essen. cop. ℥ij.; Pulv. gum acac. ℥ss.; Aqua cinnam. ℥ij.; Syr. simp. ℥iss.; tinct. opii. ℥ss.; M. Dose a table-spoonful.

The copaiba, solidified by its union with magnesia, is also a valuable preparation, and free from the sickening taste of the fluid article. It is highly spoken of by several practitioners.

Art. 2. Observations on Opium and some of its constituents, by Edward Staples, M. D. This paper is principally on morphia and narcotine. After some remarks on the extractive principle, Dr. Staples says that he succeeded nearly two years since in obtaining morphia in a crystalline form, and in an almost pure state, by immediate precipitation from a combined acetic and alcoholic solution; this was published in our cotemporary, the North American Medical and Surgical Journal. He now gives the process more at length; and we are sorry that our limits will not permit us to transfer it to our pages. By the plan proposed by our author, he says, many of the difficulties hitherto attendant on its preparation are obviated, and that a little skill, and an apparatus of a very humble order, will enable persons to prepare this salt. Opium of a very superior quality thus treated, afforded ℥xv. of morphia. M. Robiquet only obtains ℥vij. from a Paris pound, and Mr. Brande ℥viij. from a carefully prepared specimen of English opium.

Next follow the minutes of the College, from which we shall only make the following extract. "The Philadelphia College of Pharmacy has now been in existence for more than eight years; during that period it has with slender

funds, and through many discouraging circumstances, affected more for the improvement of American Pharmacy, than all that has before been done or attempted in this country. It has produced union and concert, a more liberal spirit, and more elevated views among the apothecaries of Philadelphia; it has had the honour of establishing the first school of pharmacy which this country has seen; it has established the first, and only journal devoted exclusively to the science and art of the profession; it has resolved a company of shopkeepers into a scientific association; the inspiring influence of which we are just beginning to feel, &c."

The miscellany, being principally composed of extracts from foreign journals, we shall pass it over. At the close of the number we perceive that the college held an examination on the 15th and 16th of April, at which seven candidates presented their theses, and underwent a scrutiny as to their acquirements.

No. 2, contains eight original communications; the first of which is Observations on the Protoxide of Mercury, and the Atonic weight of that Metal, by Samuel Allinson, Jr. We find it no easy task to analyze this paper from the close connection one part of it bears to another. It has been considered as an established chemical fact, that there were two distinct oxides of mercury, the black and the red, but recent experiments seem to render it probable that the former is only a mixture of the latter with metallic mercury. Mr. Allinson says, if the experiments which he has performed with much care are correct, that the common idea, that the black oxide is composed of one atom of oxygen and one of mercury, and the red oxide of an additional atom of oxygen, must be abandoned; for either the red oxide is a combination of atom to atom, or the theory of binary compounds is infringed in an important particular, namely, that they are of more difficult decomposition than the ternary. Our author observes that there is a great difference of colour, and most probably of chemical composition, in the article kept by different apothecaries under the name of the black or protoxide of mercury, as it varies from a brownish-red to a light lead colour. He prefers preparing it by precipitating it by means of pure caustic potash, or lime water from the proto-nitrate. Mr. Allinson states that he is indebted to Thomas Evans for an interesting and important fact respecting calomel. "That when an alkaline solution is poured on calomel, however often the latter may have been edulcorated, to remove corrosive sublimate, a reddish powder is at first apparent." This shows the fallacy of one of the reputed tests of that salt.

Art. 2d. Remarks on the preparations of iodine and their compounds, from the inaugural thesis of W. R. Fisher. The author of this paper urges the absolute necessity of the adoption of some certain formulæ in the preparation and use of this article and its compounds. The paper displays considerable research and judicious selection, but is of a nature which will not allow of our giving an analysis of it.

Art. 3d. Remarks on the Bi-carbonate of Soda, from the inaugural thesis of Franklin R. Smith. By the modes of preparing this salt as directed by the pharmacopœias, a sesqui instead of a bi-carbonate is formed. The process pursued to obtain it in this city being different from that of the colleges, or from any mentioned in chemical authors, induced Mr. Smith to examine the article. The mode of forming it here is by placing the common carbonate of soda "in a box

contrived for the purpose, and surrounded by an atmosphere of carbonic acid gas under pressure. The salt absorbs the gas, and as the new compound combines with less water than was contained in the old, a considerable quantity of fluid drains off." This plan presents many advantages, care must however be taken that the salt be exposed a sufficient time to the action of the gas, or it will not be equally saturated. In fact, in specimens examined, Mr. Smith has found a portion of carbonate mechanically retained. For preparing the bi-carbonate the French carbonate is preferred.

Art. 4th. Remarks on Quercia, a new substance discovered in the bark of Quercus falcata; from the inaugural thesis of Joseph Scattergood. This gentleman has obtained a peculiar salt from the barks of our native oaks, to which he has given the title of Quercia. This salt is inodorous, tasteless, and entirely insoluble in ether, alcohol, or water either hot or cold. It appears to have more analogy to the earths than the alkalies in some respects, but differs from them in forming insoluble compounds with the mineral, and not combining with the vegetable acids. The quantity obtained from the bark is very great, being as high as seventy grains from four drachms. From the experiments detailed in the thesis it appears that four hundred grains of Spanish oak bark is composed of tannin, forty grains; gallic acid, twenty-six; oily and resinous matter, ten; extractive, six; quercia, seventy; woody fibre, two hundred and forty-eight. Quercia and its salts, from their insolubility, are not likely to prove of much medicinal importance. Mr. S. has taken upwards of ten grains, without its producing any effect, and one drachm of the sulphate was administered to a dog without its having any perceptible action on him.

Art. 5. Remarks on the preparation of blue mass, by Elias Durand. Struck with the great imperfection of this preparation, as it is generally to be met with, Mr. Durand instituted, some years since, a course of experiments with the view of discovering some substance which would at once extinguish the mineral, and prevent the hardening and alteration of the mass. He ultimately found that honey fulfilled these indications in a great measure. This substance is objected to in the American Dispensatory, as producing griping, but this objection Mr. D. does not think as valid, as the quantity of honey is too small to interfere with the ordinary action of the medicine. This preparation possesses the advantage of keeping for years in a proper consistence for forming pills. It is made with mercury, four parts; inert vegetable powder, (liquorice or marsh mallow root is preferable to starch,) three parts; gum Arabic, one part; liquid honey, four parts. Mix the gum with half of the honey, and to this add the mercury. Triturate without intermission, if possible, until no globules are perceptible, then add the other ingredients. Each three grains of this preparation contains one of mercury.

Art 6th. On the non-existence of oxide of mercury in blue pill and blue ointment, by Samuel Allinson, Jr. The author of this paper confirms the idea now held, that these preparations are composed of mercury in an extremely comminuted form, combined with conserves or lard, and not of an oxide of mercury. This fact is generally admitted in France, though it is denied in the British and American Dispensatories. It completely overturns the long-established maxim, that metallic mercury is perfectly inert when internally used.

Art. 7th. An analytic memoir on Tobacco; by Columbus C. Conwell, M. D.

The peculiar principle of tobacco is termed nicotia; it is tasteless, inodorous, uncrystallizable, and destructible by heat. It is insoluble in water and alcohol, and combines with the acids, forming nearly insoluble salts. Its great peculiarity is that of striking a red or light claret colour with all the acids. The essential oil appears to contain all the virulent energies of the plant. Dr. Conwell states that starch does not exist in the pure Virginia leaf, at least it cannot be detected by means of iodine; Vauquelin, however, asserts that he has found it.

The number terminates with selected articles; these, in our opinion, are of a more practically useful character than those given in the first. The college as a body, very wisely disclaims any responsibility for the opinions and statements communicated in the Journal; in this they are perfectly right, but we think that it would be advantageous and useful if the editors should prefix their opinion to any papers which they may conceive as containing erroneous or improper doctrines, for although the college and the editors may not hold themselves responsible for the facts and assertions given in their Journal, still, as they appear under the sanction of their name, it will always be considered that they deem them valuable and trustworthy, by giving them an insertion on the pages of their publication.

Since writing the above, we are happy to see that our brethren in New York are fully aware of the utility of a pharmaceutical college, and are about establishing one on much the same principles as that in Philadelphia. We augur much good to the science from their united labours, as tending to give certainty and efficiency to one of the most important branches of the healing art.

R. E. G.

XXIII. *Elements of Medical Statistics, containing the substance of the Gulstonian Lectures, delivered at the Royal College of Physicians. With numerous additions, illustrative of the comparative salubrity, longevity, mortality, and prevalence of diseases in the principal countries and cities of the civilized world.* By F. Bisset Hawkins, M. D. of Exeter College, Oxford; Fellow of the Royal College of Physicians, and Physician to the Westminster General Dispensary, London, 1829, pp. 234, 8vo.

This is a valuable collection of statistical matter, comprehending a more extensive view of the subject than any work we have yet seen. Reports, essays, and other documents relating to various countries, towns, and hospitals, are here brought together, which if left detached, would perhaps have been overlooked, or excited but little attention. Collectively, however, they afford data for curious investigation, enabling us to estimate the influence of the moral and physical causes which operate upon man in the various countries and stations of society, to compare the value or duration of life in ancient and modern times, to ascertain the relative healthiness or insalubrity of countries and cities at the present day, and the results proceeding from the influence of civilization and the various efforts made towards the improvement of health.

Among the positions which Dr. Hawkins regards as established are, a general extension of the average duration of life in modern times throughout Europe, every succeeding ten years, apparently producing a smaller annual proportion

of deaths; the superior salubrity and inferior mortality of all descriptions of the population of Great Britain compared with that of other countries; the great diminution in the proportion of deaths in general, and more particularly in lying-in and foundling hospitals; the less disposition of his countrymen to commit suicide than any other people that have attained a similar grade of civilization.

The only source to which Dr. H. appears to have applied himself for information relative to this country, is the statement made by Drs. Niles, jr. and Russ, put forth at New York, in 1827.* This publication, which professes to be "A Comparative View of the Mortality, in New York, Philadelphia, Baltimore, and Boston," does great injustice to Philadelphia, the annual mortality of which, for the entire city, is represented to be in the proportion of 1 death for every 31 inhabitants, the highest rate exhibited by any of the above-mentioned cities. The correction of this statement may be found in this Journal, where it is shown that on an average of many years, the deaths per annum of the entire population, is about the proportion of 1 to 50.8.†

Persons who undertake such investigations, should be intimately acquainted with all the circumstances which may exert an influence upon their calculations, and be capable of impartially weighing and making fair allowances for them. A knowledge of the manner in which the city and county of Philadelphia are divided for municipal purposes, would have doubtless prevented Drs. Niles and Russ from committing an error in relation to the proportional mortality of this city, which places it in a very unfavourable light in the pages of Dr. Hawkins.

In the comparison instituted between the results of fever treated by art, with those of fever consigned to nature, we think Dr. H. has formed improper conclusions. He brings forward on this occasion the frank avowal made by Hippocrates in his book of epidemics, where he acknowledges, that out of forty-two cases of acute disease, in which no active treatment appears to have been adopted, half of them died. This statement Dr. H. compares with the returns of the London Fever Hospital, where the total mortality, (in 1825,) was only one in seven, and of the Dublin and Edinburgh hospitals, in which the rate is still lower, being only about one in twelve. "We perceive," says Dr. H. after this, "that one out of two acute cases may recover by the almost unassisted efforts of nature, but that under the medical protection of our own age and country, six out of seven, or even eleven out of twelve are likely to survive." In forming this conclusion, has Dr. H. duly estimated the difference of circumstances which operated on the occasions alluded to? Has he taken into consideration that the cases recorded by Hippocrates, instead of being such as are of ordinary occurrence, were in all probability dependent upon a pestilential constitution, similar to what we still occasionally find producing diseases of such malignancy as to render unavailing all the curative efforts which can be interposed at the present day? Whatever degree of conviction we may entertain of the greater efficacy of modern practice, we would still reject the test here offered by Dr. Hawkins.

We condense from the treatise under notice the following interesting statistical facts in relation to the probabilities of life at different periods of the world; the mortality of hospitals, &c.

* Dr. H. has converted the name of Dr. Russ into Rush.

† See first number, (1827,) article Medical Statistics of Philadelphia.

The probabilities of life among the Roman citizens in the third century of the Christian era, calculated from documents furnished by Domitius Ulpianus, (Berard, Discours sur les Amélioriations, &c. &c.) were as follows:—

From birth to 20 years of age, 30 years—from 20 to 25, 28 years—from 25 to 30, 25 years—from 30 to 35, 22 years—from 35 to 40, 20 years—from 40 to 45, 18 years—from 45 to 50, 13 years—from 50 to 55, 9 years—from 55 to 60, 7 years—from 60 to 65, 5 years.

In England, during the last forty years, the estimates of Finlayson makes the probability of life, at 20 years of age, 40 years—at 40, he allows 29—at 50, as many as 22—whilst at 60, he admits 15.

The same calculator has fixed upon 37 years as the mean duration of life in Britain, reckoning from 1695; but if the estimate be made from 1789, he makes it above 52 years.

Proportional Mortality of Countries, Cities, &c.—In the middle of the last century, the annual mortality of London was 1 in 20, whilst in 1821 it was ascertained to be 1 in 40, so that, in the space of 70 years, the chances of existence appear to be exactly doubled.

The annual deaths throughout England and Wales have been reckoned at 1 in 60 of the population.

The average mortality of Glasgow, from 1801 to 1826, is 1 in 44.41.

In France the annual deaths in 1781, were 1 in 29 for the whole population; in 1802, they were 1 in 30; in 1823, they were 1 in 40. In Paris, about the middle of the last century, the mortality was about 1 in 25; at present it is about 1 in 32.

In the Pays de Vaud, considered the most healthy part of France, the annual mortality is stated at 1 in 49 inhabitants.

In Sweden the annual deaths from 1775 to 1795, were in the proportion of 1 in 37; in 1823 the mortality had diminished to 1 in 48.

In Berlin the annual mortality was 1 in 28 from 1747 to 1755; but less than 1 in 34 from 1816 to 1822. For the whole of Prussia the mortality is about 1 in 35. Madrid loses 1 in 29; Rome, 1 in 25; Amsterdam, 1 in 24; Vienna, 1 in 22½; Geneva, 1 in 43; Naples, 1 in 28½; Leghorn, 1 in 35.

It is generally calculated that the 20th part of every population is labouring under illness, and that the 100th part has some severe disease.

In France it has been estimated that about half the children born, live to 20 years, and about a third to 45. The lowest annual mortality is at the age of 10, when it is only 1 in 130. At the age of 40 it is 1 in 53. The probability of life to a man of 43 is 23 years. The mortality is greatest among the poor, and least with the affluent.

During the 8 years, from 1816 to 1823, the mean height of young men fit for military duty, was found to be in Paris 5 feet 2 inches and 1½ lines, whilst in the suburbs of Sceaux and St. Denis, it was only 5 feet 1 inch and 9½ lines.

The mean average of deaths for the whole kingdom of Holland is by a late estimate 1 in 48.

The annual deaths throughout Russia appear at present to be 1 in 41 inhabitants; in St. Petersburgh alone, 1 in 37.

In the Venitian provinces the mortality is estimated at 1 in 28 per annum.

Mortality of Hospitals.—The annual mortality of St. Thomas's Hospital, Lon-

don, was, during the 10 years intervening between 1803 and 1813, so low as 1 in 16. The average during the 50 years, from 1764 to 1813, was 1 in 15. The average deaths of the physicians cases during 10 years were 1 in 9. Number of in-patients cured and discharged in 1827, 3151; out-patients, 9343; deaths, 259; remaining under care, 879; total, 13,632.

St. Bartholomew's Hospital, London, reported for 1827, as cured and discharged 4916 in-patients, 4318 out-patients, and 3173 casualty patients, in all 12,407; deaths, 350; remaining under care, 960; whole number of patients during the year, 13,367.

The two reports of St. George's Hospital, London, for 1825 and 1827, give a mortality of 1 in 9. The great mortality of this establishment is attributed to the closeness of the wards.

In the Provincial Hospitals the mortality is less, as it is generally found to be in other countries. The rate of mortality in the public institutions of Dublin and Edinburgh is lower. That of the Bath United Hospital is still less, being in 1827 only 1 in 20. During the same year out of 271 patients received under the surgeons care, 16 died, or about 1 in 17.

The mortality of the Fever Hospital in Dublin, has gradually and steadily diminished of late years; from 1804 and 1812 it was 1 in 12; from the last period to 1814 it was 1 in 15; and in 1815 it was only 1 in 20.

The deaths in the Edinburgh Royal Infirmary, on an average of the 10 years previous to 1818, was 1 in 16 of all admitted.

The hospitals of Paris received and treated during the year 1822, 47,343 individuals. The hospices afforded refuge to 13,216. The administration supported 19,557 deserted children. The mortality in the hospitals, classing all together, was 1 in 8.42. The daily expense of each patient was one franc, seventy-six centimes, in the hospitals, and only about eighty-four centimes fifty-eight dixiémes in the hospices. The mortality of the Hôtel Dieu was, in 1822, 1 in 6.82 of the whole number admitted, of which about 1 in 6¾ were medical, and 1 in 12 surgical cases.

In the Charité, the mortality is 1 in 5.53.

The mortality of the Hôtel Dieu at Lyons, is about 1 in 11. At Montpellier the average of all the institutions is about 1 in 10.

In Berlin, the mortality of the great general hospital, the Charité, for the 20 years preceding 1817, was about 1 in 6.

The great general hospital in Vienna presents a mortality of about 1 in 6. The total number of beds is about 2000, contained in 111 rooms.

At Pesth, the present capital of Hungary, the annual deaths at the Civil Hospital were, in 1826, 1 in 6.

At the City Hospital in Dresden, the deaths in 1816 were 1 in 7.

In the hospital at Munich, one of the most modern and best regulated, the report of 1819 affords only 1 death in 9, of above 3500 patients, the lowest mortality of any hospital of the same dimensions in Germany. The mortality of the hospitals of the small towns in Germany, is often one-half, or even one-third of those situated in the great cities.

The annual average of deaths at the Imperial Hospital for the sick poor, at St. Petersburgh, has been for 14 years, ending in 1817, so high as 1 in 4½, the greatest proportion of any general hospital of the same extent, at the same pe-

riod. The sick were most numerous in April and May, September and October. In the year 1816, the in-patients at the above hospital amounted to 2043, of whom 461 died; the out-patients were 26,968, of whom 4072 died. There were 32 operations for the stone here in 1817, of which there were 12 deaths.

The mortality in the Hospital of St. Pierre, at Brussels, was, in 1823, 1 in 9 for the adult patients.

At Milan, the mortality of the great hospital was, in 1823, 1 in 7. The number of patients treated in that year, was 13,278.

In Pavia, the total mortality of the Hospital of San Matteo della Pieta, in 1823, was about 10 per cent. The total number treated in the year was 5287. Of these, 42 were brought in moribund. There were 120 surgical operations, the deaths in which department were about 6 per cent.

The annual average mortality of the hospital at Leghorn, from 1818 to 1825, was about 1 in 7.

In Madrid, according to the best information to be obtained, the two principal hospitals had, in the year 1818, 14,500 patients, but what proportion of these were out-patients is not known. The whole amount of deaths was 1283.

Statistics of Lying-in Hospitals, and of the Still-born.—In 1750, at the British Lying-in Hospital of London, 1 woman died out of 42; in 1780, only 1 died in 60; and finally, in the 10 years between 1789 and 1798, only one case was fatal out of 288. The proportion of still-born at this last mentioned period was about 1 in 25, and of women having twins 1 to 84. In 1750, 1 child died out of 15; in 1780, 1 in 44; and in the ten years between 1789 and 1798 only 1 in 77.

The mortality at the Lying-in Hospital in Paris was formerly much greater than that of the London hospital at the same period. In 1822, it had, however, diminished so that only 1 died out of 30, which it will be observed is still more than double the mortality of the London institution, where, in 1826, there only died 1 in 70. The average stay of each female admitted into the Paris hospital was about 22 days.

In the Dublin hospital there were, in 1822, only 12 deaths out of 2675 women delivered. The following is the official report of the results observed there during nearly 70 years, viz. from its origin in 1757 to 1825:—

Proportion of males and females born, about 12 males to 11 females.
———— of children dying in the hospital, about 1 to 19.
———— of children still-born, about 1 to 17.
———— of women having twins, (and more,) about 1 to 60.
———— of women dying in child-bed, 1 to 89.
———— of women having three and four children, about 1 to 4000.

The mortality at the Edinburgh Lying-in Hospital is about 1 in 100.

The deaths at the Lying-in Hospital at Stockholm were, in 1822, 1 in 29; about the same as in Paris. In 472 deliveries there were 11 cases of twins, 1 triplet, and 36 still-born. Of the 21 deaths of mothers, 16 were from puerperal fever.

At Berlin, a beneficial change has taken place, similar to what has been observed in London and Paris. From 1796 to 1806, one lying-in woman died out of 32 received into the Charité Hospital at Berlin; whilst in the ensuing 10 years, from 1807 to 1817, only 1 fatal case occurred in 45.

The average fatality attendant upon pregnancy throughout the whole king-

dom of Prussia, has been ascertained and published under the authority and sanction of government. According to this estimate, which embraces all ranks of society, 1 mother died in that country out of 112.

Still-born.—It appears that 1 infant out of 32 is still-born in Prussia; in Hanover about 1 in 30.

The variations which occur in the proportions of still-born are difficult to explain. In the middle of the last century, 1 out of 25 births were still-born, and at the very same time at Strasburgh 1 in 8. In this last named city, the proportion is now less, although it still remains greater than elsewhere, being at present 1 in 12½ of all the births. In Sweden and Finland, on the contrary, it is only 1 in 40. Generally speaking the still-born are more frequent in towns than in the country, and more common amongst the poorer than the affluent classes.

At Stutgard it has been remarked that the number of still-born increases nearly in the proportion of the illegitimate births, and it may be added that of the legitimate children in Prussia, only 2 out of 10 die in the first year, but 3 in 11 of the illegitimate.

At Berlin, the proportion of still-born has continued nearly the same for the last 50 years. At present it is 1 in 19½. According to Caspar, the rate in some other cities is, London and Vienna, 1 in 24; Paris and Dresden, 1 in 19; Hamburgh, 1 in 15.

The proportion of abortions and still-births in Europe is far greater among single than married women. In the *Hôpital des Vénériens*, at Paris, 2 children out of 7 are dead-born, and in a similar establishment at Hamburgh, the proportion is 1 in 3. At Göttingen, only three per cent. of the legitimate children are still-born, but as many as fifteen per cent. of those born out of wedlock.

G. E.

XXIV. *Observations on the Nature and Treatment of Cholera and on the Pathology of the Mucous Membranes.* By Alexander Turnbull Christie, M. D. Madras Medical Establishment, and lately in Medical Charge of the Civil Department in the Southern Mahratta Country. Edinburgh, 1828, pp. 137, 8vo.

The extensive and fatal prevalence of cholera, a few years since, in India, where it is said to have destroyed six millions of human beings in less than seven years, has rendered the disease a subject of great interest, and demanded the especial attention of the medical officers attached to the British government in that country to an investigation of its nature and treatment. Their researches have furnished us with an accurate history of the progress of the disease—minute descriptions of its symptoms—accounts of various modes of treatment—and details of its frightful mortality—but they yield little towards a satisfactory illustration of its pathology, or a rational mode of cure. The observations of Dr. Christie afford much interesting information on these two latter points, and though his pathology is not perfectly correct, nor his therapeutics, at least in all parts, in strict harmony with it; still the former approaches nearer the truth, and the latter has fewer discrepancies and is less empirical than those of other English writers on the subject. We therefore believe that we are performing an accept-

able service to the profession, in laying before them a sketch of this publication.

From observing that in every case, the mucous tissues, from the very commencement of the attack, bore the principal onus of the disease, Dr. C. was led to infer that it was in these that we must look for its pathological cause; and therefore, to elucidate the subject of cholera more fully, he has prefixed to his essay, some general remarks on the pathology of these membranes.

Dr. C. commences by observing that "in almost every texture, disease, however much it may vary in its progress and termination, is, with few exceptions, ushered in by inflammation," and he attempts to prove, that "the mucous system affords a remarkable exception to this general rule," and "that in addition to inflammation it is liable to another simple morbid affection, viz. catarrh, which often occurs alone, without being accompanied, or having been preceded by inflammation." Inflammation he considers to be "owing to some affection of the capillary vessels which connect the extreme arteries with the veins," and evinced by one or more of the following signs, viz.: increased heat, pain, redness, and swelling; catarrh, as consisting in "a diseased action of the secretory apparatus of a mucous membrane, which produces an increased and vitiated secretion, and is characterized by the membrane in which it occurs, being generally whiter than natural, and by the quantity of blood towards the surface of the body being diminished." Our author, we may add, is of opinion, that "either of these morbid affections may occur alone in a mucous membrane, or conjoined with the other," and that "some medicines produce an inflammation, others a catarrhal action, in mucous membranes;" "a long continued action of certain medicines produce the former, while a short continued action of the same medicines produces the latter effect."

To prove which, Dr. C. is in error, in supposing, that what he calls catarrh of the mucous membranes, is not an inflammatory state; it is only necessary to notice some of the physiological characters of these tissues, and to trace the progress of inflammation in them.

The mucous membranes in a healthy state, are constantly moistened by a sero-mucous fluid secreted by vessels opening on their free surface, and most of these tissues, as the gastro-intestinal, contain follicles or cryptæ which pour out a mucous fluid.

If a moderate irritant be applied to a mucous membrane, the first effect is an increased flow of blood to the part; this of course produces redness and tumefaction, also increased heat, and if the part is well supplied with nerves of sensation, its unnatural condition produces a feeling of uneasiness or pain, and we have those symptoms which Dr. C. considers as constituting inflammation. This state is however generally of very brief duration, being speedily followed by an increased secretion from the exhalent vessels and cryptæ; and the engorgment is thus relieved, and the redness, increased heat, tumefaction, and pain ceases. If the irritant is removed, the determination of blood to the part ceasing, the secretions diminish, and the part is restored to its normal condition. If the increased flow of blood is kept up by the continuance of the irritant, the secretions continue profuse, and if the irritant is sufficiently powerful or long enough continued, the secretions are not only increased in quantity but

altered in quality—in addition to the serous part of the blood, fibrine is also poured out, and we have that state which Dr. C. has called the catarrhal. When the quantity of the secreted fluids is less in proportion than the quantity of blood thrown into the tissue, we have redness, tumefaction, &c. or that condition of things which Dr. C. considers as inflammation united with catarrh. Should the irritation be still more violent, we may have in addition to the serous and fibrinous portions of the blood, the red particles also thrown out, or a true hæmorrhage. When the irritation is still more violent, the secretions become suppressed, the blood accumulates, and hence follows redness, tumefaction, heat and pain; a state of things which exists at the commencement of inflammation of the skin, muscles, and of those tissues, in which the increased quantity of blood determined to the irritated part cannot be got rid of by the increase of a natural secretion and the balance thus preserved, and which continues until relieved by the establishment of some artificial secretion, as by that of pus, or by the other terminations of inflammation.

The observations and experiments of Dr. Christie, amply confirm this sketch of the progress of inflammation in the mucous tissues; and he has been led into the error of supposing that catarrh is not an inflammatory state, by his belief that heat, redness, tumefaction, and pain are essential concomitants of the latter. This, however, is taking but a very limited view of inflammation. It is restricting this affection to certain phenomena which are only some of its effects, and excluding others which do not less belong to it. An increased and deranged secretion is as much an evidence of the existence of inflammation in mucous tissues, as redness, pain, tumefaction, and heat are of its presence in the skin, muscles, &c.

It is somewhat singular that Dr. C. should assert, as he does correctly, that "in catarrh, the action of the excretory vessels of a mucous membrane is increased," and yet deny that it is an inflammatory state. His knowledge of this fact should have led him to inquire into the correctness of his notions respecting the essential characters of inflammation.

Dr. C. lays great stress on the preternatural whiteness of the mucous membranes in catarrh, as proving that this state is not an inflammatory one; this proof will, however fail him. When the gastro-intestinal mucous membrane is coated with the mucus and fibrine secreted in cholera, that membrane of course appears whiter than natural; but if this covering, which adheres with considerable tenacity, is carefully removed by washing, the membrane will often be found preternaturally red. Generally, moreover, where the disease has continued for some length of time, the membrane becomes thickened by effusion of coagulable lymph, one of the common effects of inflammation, and it appears from this cause unnaturally white.

We now proceed to prove, by the evidence afforded by Dr. C. that cholera is produced by a change in the gastro-intestinal mucous membrane, such as we have described. Dr. C. produced artificial cholera repeatedly, in dogs, by irritating substances introduced into their stomachs; and a young Mahomedan, who took too large a dose of Croton tiglium, which occasioned hyper-catharsis, exhibited so perfectly all the symptoms of cholera, viz. muco-serous evacuations, scarcely perceptible pulse, cold extremities, contracted features, &c. that Dr. C. until it was explained to him, supposed that it was an attack of genuine cholera.

Dr. C. further states that "the morbid appearances that are *invariably* met with in cholera are confined to the mucous system; those observed in other systems being only occasional. In all the dissections I have made, the following appearances have been present. A whitish, opaque, viscid substance was found adhering to the surface of some portions of the mucous membranes; and in many cases it was so abundant in the intestines as completely to fill parts of them of a greater or smaller extent. The stomach and portions of the intestines were filled with a transparent or turbid serous fluid; and, frequently, the viscid matter mentioned above was found intimately mixed with the serous fluid, or floating in it in the form of flakes. The mucous membranes, (except when inflamed,) had an unnatural whiteness; were frequently soft and pulpy; and in general, (especially in the stomach and small intestines,) could be easily detached by scraping, in the form of a thick pulp, from the subjacent coat. These appearances were sometimes more or less partial; but some of them were generally found throughout the whole extent of the alimentary canal. They extended, in some cases, to the mucous membrane of the bladder and uterus; and were found, in two or three instances, in the pulmonary mucous membrane.

"Many cases have been related, in which the secretion from the gastro-enteric mucous membrane exhibited appearances different from those mentioned above. It has been met with of a dark gray or green colour, sometimes bloody, and occasionally of the consistence and colour of cream. It has been shown by Mr. Annesley that the dark gray and green colours are owing to the chemical action of calomel and bile on the cholera secretion; and they cannot be considered, therefore, as constituting separate varieties of the secretion. The creamy matter I have met with in two or three cases; and in these it had very much the appearance of pus. The bloody variety I have never seen. It is very rare; and probably arises from accidental circumstances.

"The morbid appearances that have been found next in frequency to those already mentioned, are, venous congestion in the viscera, particularly in those of the abdomen; dark-coloured blood in the veins, and sometimes in the left side of the heart; and inflammation in some part of the mucous membranes. I have generally found inflammation, (when present at all,) confined to the pyloric extremity of the stomach and small intestines. I have also met with many cases in which no inflammation could be detected."

From a careful examination of the cholera secretion, procured from the stomach and intestines of several individuals that died of the disease, Dr. C. found it to consist of two portions, one a transparent serous fluid; the other an opaque white coagulum. Chemical analysis showed the first to be pure serum, and the second *fibrin*. This is an extremely interesting fact, for which we feel much indebted to Dr. Christie; it is confirmatory of our pathology, this secretion depending essentially upon inflammatory action.

That the disordered state of the mucous membrane is not a partial occurrence, but is invariably present in cholera, is a fact, says Dr. C. that rests on the best evidence.

"Many cases," he adds, "have been recorded in which we find it stated, that on examination no morbid appearances could be detected. But, *in these cases, were the mucous membranes carefully examined?* From what has been stated in a former page, *we have every reason to suspect they were not.* Even if they were carefully

examined, and no morbid appearances could be discovered, we are not the less certain that their *functions* were disordered during life; for of this the copious morbid secretions thrown off by vomiting and stool, afford a sufficient proof. It is stated in case eighth in the Bengal Report on the Epidemic Cholera, that no morbid appearances could be discovered on dissection; yet even supposing this dissection to have been made with the greatest care, it is perfectly evident that there was great functional derangement of the gastro-enteric mucous membrane during life; for the most prominent symptoms were frequent vomiting and purging.

"The catarrhal affection has its seat generally, I think, in the stomach and small intestines; and in almost all severe and protracted cases, it appears to pervade every mucous membrane of the body. The stomach is certainly most obnoxious to the disease; and I have met with no case in which it was free from it. I imagine that the mucous membrane of the air passages is not *always* affected; but it frequently is so, and perhaps invariably in severe cases.

"For some time, believing the stomach and intestines to be the only seats of the disease, I unfortunately overlooked the condition of the pulmonary mucous membrane; and since my attention has been directed towards the latter, I have had it in my power, only two or three times, to ascertain the state of that membrane by dissection. The first of the cases alluded to was that of an old man, a convinct, who died of cholera after an illness of about ten hours. The symptoms were frequent watery purging, collapsed features, gradual diminution in the size of the pulse, coldness of the extremities, and difficulty of breathing. Having been attacked with the disease during the night, and not having reported his illness till the morning, the remedies came too late, and the disease proved fatal. The usual morbid appearances were found in the gastro-enteric mucous membrane, with little venous congestion in the abdomen, and no inflammation. The trachea was lined with a thickish mucus; and the minute branches of the bronchia were completely filled with a white froth. The second case being in many respects extremely interesting, and the dissection having been made with great care in the presence of a medical friend, I will relate it in detail.

"15*th June*, 1826.—Anomah, male convict, aged 20, was brought into hospital about half past five, P. M. from Moogud, a village about five miles from Darwar.

"6, P. M.—It is reported that he vomited and was purged two or three times early this morning; but he himself positively asserts that he neither vomited nor was purged. When interrogated, he complains of nothing but slight pains in his limbs. His intellect is perfectly clear; and although he is weak, he has a perfect command over all his voluntary muscles. Features considerably collapsed; pulse not perceptible at the wrist or temples; no perspiration on any part of the body; hands and feet cold; tongue coated, whitish, and moist. Sumat statim submur. hydrarg. ℈i. et superbibat tincturæ cardamomi, ℥i. in paululo aquae tepidae. Admoveantur sinapismi pedibus et cruribus, emplastrum epispasticum forte abdomini et arena calida brachiis.

"7, P. M.—Has taken two doses of the calomel and tincture of cardamoms. Says he feels a little better. Skin colder since last report. Features much collapsed. Complains of slight pain in his knees, and of pain from the cata-

plasms. Answers all questions most distinctly. Sumat submur. hydrargyr. gr. v. necnon tinct. cardamom, ʒiij. in paululo aquae tepidae quaque semihora.

"9, P. M.—Has taken four doses of the calomel and tincture of cardamoms. Is restless, and complains of thirst. Pain in the umbilical region on pressure. Pain in his knees continues. Skin cold, with a slight cold perspiration. No pulse at the wrist or temples. Continuantur remedia.

"10, P. M.—Has coughed up a quantity of white froth. In other respects the same.

"He died about midnight; and the body was examined at six o'clock of the following morning.

"*Abdomen.*—Stomach distended, with its external surface natural. Small intestines considerably distended, and of a purplish colour. Large intestines, in some places distended, in others much contracted, with their external surface natural. The stomach contained a large quantity of whitish muddy fluid. Its mucous coat was lined with a white coagulum, and exhibited a blush of red near the pylorus. The duodenum contained a large quantity of a white turbid serum, and a large lumbricus: its mucous coat was of a white colour, and was lined with a whitish mucus throughout its whole extent. The jejunum and ileum contained a large quantity of serous fluid, mixed with flakes of a white coagulum. Their mucous membrane had a light vermilion colour, and was lined with a white coagulum. The large intestines contained a considerable quantity of turbid serous fluid. The mucous membrane of the cœcum, and greater part of the colon, had a reddish colour, and was lined with a diaphanous mucus. The lower part of the colon and rectum were healthy. The liver was healthy in its structure, with more blood than usual in its veins. The gall-bladder contained healthy, and somewhat inspissated bile. The urinary bladder was healthy.

"*Thorax.*—Heart natural. Blood dark coloured. Structure of the lungs healthy. A quantity of white froth was found in the trachea. *The bronchia were filled with a white froth, and a large quantity of a gray serous fluid mixed with white flakes.*

"*Encephalon.*—Considerable congestion in all the meningeal veins. All the contents of the cranium were, in other respects, healthy."

The skin frequently participates in the diseased action of the mucous membranes; in many cases being covered with a cold clammy sweat, or with profuse perspiration. "There is sometimes a copious perspiration, when the pulse at the wrist is extremely small, or altogether imperceptible. This has generally been considered as indicative of extreme debility of the cuticular perspiratory vessels. On the other hand, I am inclined to think, that these vessels have their action very much increased; for were the reverse the case, how does it happen that, when only a small quantity of blood flows sluggishly, or in drops, from a large orifice made in a vein, or even when no blood can be procured, the cuticular secretion forces its way through the minute pores in the skin? It is easily conceivable how debility of the perspiratory vessels can occasion increased perspiration when the superficial arteries, which are immediately behind them act with vigour; but when these arteries do not contain a sufficient quantity of blood to enable them to continue their own action, the only way in which perspiration can be thrown out is evidently by an increased action of the

perspiratory vessels. But perspiration is by no means an invariable symptom of cholera; for, in some cases, there is only a slight moisture about the face and hands; and, in others, the whole skin is perfectly dry.

The symptoms of cholera are well described in most of the systematic treatises, and are familiar to the profession; and the ratio symptomaticum suggests itself after understanding the true pathology of the disease; we shall not, therefore, devote any time to these subjects, but proceed at once to the treatment.

Cholera consisting in secretory inflammation of the gastro-intestinal mucous membrane, with great determination of blood to this part, the indication is to subdue the increased action of the secretory vessels, and to restore the balance of the circulation.

Blood-letting is generally admitted to be one of the most powerful remedies we possess to effect these indications, and Dr. C. thinks that it is even more extensively applicable than is usually supposed. He conceives "that it is not only indicated in the case of the robust and plethoric European, but also in that of the most delicate native. It ought not only to be put in practice in cases accompanied by increased action of the circulation, but even in every case when blood can be obtained, however much its quantity may have been diminished towards the surface; except only in those cases in which there had been great debility previous to the attack of the disease."

The modus operandi of blood-letting is too evident to require explanation.

To restore the circulation to the surface, and thus relieve the internal vessels, the utility of stimulants applied to the external parts of the body readily suggests itself.

Blisters and sinapisms Dr. C. ranks among the most beneficial, and certainly the safest remedies in cholera. He generally applies "a strong cantharides plaster to the abdomen, and sometimes to the chest; cataplasms of mustard and capsicums to the feet and legs; and hot sand, or friction, to the arms and hands. It is, I think, only in extreme cases that we ought to have recourse to boiling water or acid, for the purpose of raising a blister; for, when there is sufficient time to admit of a blister being raised by means of a plaster, the constant stimulus which it keeps up appears to be more effectual in occasioning a steady determination towards the surface than the sudden and violent stimulus of either of the former. However, in two or three almost hopeless cases, I have seen the boiling water blister attended with the most favourable results. One of these was the case of a native woman in Darwar, who had been ill the greater part of the night. Her friends did not apply to me for medicines till nine o'clock in the morning. She then had no pulse at her wrist; her features were collapsed, and her skin cold. I ordered the boiling water to be applied immediately to the abdomen, and that she should have a little tincture of capsicums in some warm water. This was done. The circulation returned to the surface; and before the evening she was free from the disease."

By far the most difficult part of the treatment, Dr. C. considers to be the management of external stimulants. This difficulty, we think, may be readily obviated by abandoning their use, or restricting them to the very last stage of the disease, where the circulation threatens to stop, and the powers of life appear to be failing. Opium, of course, forms an exception to this restriction, it being useful by its sedative powers. The morphium should always be pre-

ferred to the crude opium. Most of the stimulants that have been used in cholera, Dr. C. thinks, *when judiciously employed*, may be productive of benefit, but admits that there can be no doubt of their often having done harm.

"The action of general stimulants," he says, "may be considered under two points of view; first, in regard to their effects on the gastro-enteric mucous membrane; secondly, in regard to their general effects on the system. The latter, from being the most manifest, have almost always obtained the greatest share of attention: but they are not always the most important; for, it is not improbable, that they are often merely symptomatic of the former. In most cases of cholera we must principally attend to the former; the first indication of cure being to restore the healthy action of the gastro-enteric mucous membrane.

"Opium has been almost invariably extolled in the treatment of cholera. The primary effect of opium is that of a diffusible stimulant. It also diminishes irritability, represses the secretions, and moderates inordinate actions. These properties point it out as a medicine well adapted to the catarrhal form of cholera. The objects we ought to propose to ourselves in its administration, are, to suppress the vomiting and purging; to diminish the depraved secretions of the mucous membranes; to alleviate spasms, and to assist in restoring the circulation of the blood towards the surface. In the inflammatory cholera it is only admissible for the purpose of allaying the vomiting; for, if continued beyond this, it would tend to increase the inflammation. Cases in which there is only catarrh of the mucous membranes, are those in which it may be used with the greatest freedom. Where inflammation is present, it must, of course, be employed with more caution. It ought, I conceive, never to be used solely for the purpose of removing spasms; for, spasms being merely symptomatic of the disease of the mucous membranes, they will most certainly cease when the latter is removed.

"Alcohol, æther, and the different stimulating tinctures, somewhat resemble opium in their general mode of action, excepting that their stimulus is more permanent. They are especially indicated in the latter stages of the disease, when they can be retained on the stomach, and when the quantity of blood is much diminished towards the surface. They are counter-indicated by pain and burning in any part of the abdomen, which they always aggravate.

"The aromatic and warm vegetable substances which have been employed in cholera, produce a slight inflammatory action on the gastro-enteric mucous membrane, and appear to exert little or no general influence on the system. They are clearly inadmissible, *except in the purely catarrhal form of the disease; and then they probably promote the cure, by repressing the increased secretion of the mucous membranes, by means of the inflammatory action they induce.* They may be used in combination with other remedies, such as alcohol, with calomel and purgatives; but, if given alone, I think it doubtful whether they would prove of any utility. Bitters are the most useful of the vegetable tonics that can be employed in cholera; for they generally possess an astringent property, whereby they repress the increased secretion of the stomach and intestines."

We have placed in Italics the very remarkable explanation offered by Dr. C. of the supposed good effects of aromatic and warm vegetable substances. That these articles increase the inflammation of the mucous membranes to such a de-

gree as often to suppress the secretions, is unquestionably correct; but how aggravating a disease can promote the cure, remains still to be explained. Astringents are essentially stimulants.

"Calomel," Dr. C. says, "is certainly one of the most extensively useful remedies we possess for the treatment of this as well as of various other tropical diseases. From what has been said of the action of calomel, in the first part of this essay, it might at first sight appear, that since *it increases the secretion* of the gastro-enteric mucous membrane, it will be inadmissible in the catarrhal form of cholera. But it must be remembered, that while it increases the secretion, it also restores it to a healthy condition. Accordingly, when cholera has been cured by calomel, the looseness to a certain extent continues; but then the evacuations are feculent, yellow, or of a dark colour. The combination of calomel and opium which has been so much extolled, appears to be a remedy admirably calculated for fulfilling the intentions of cure in the catarrhal form of cholera; for the requisite properties wanting in the one medicine are supplied by the other. Thus calomel keeps up a permanent stimulant effect on the system, which opium does not. Opium represses the abundant discharge from the gastro-enteritic mucous membrane, while calomel corrects it. Lastly, calomel increases the peristaltic motion of the bowels, and thus effects the discharge of vitiated secretions, while opium relieves irritation.

"In the inflammatory form of cholera, calomel will act with greatest effect when given alone, or combined with a purgative; for our object, in this instance, *is to remove inflammation*, and to excite a healthy increased secretion in the mucous membrane of the primæ viæ. Even in the catarrhal form of the disease, where there is little or no peristaltic motion in the bowels, calomel may be beneficially combined with *stimulating cathartics;* for in such a case, when given without them, *it sometimes remains in the stomach and upper parts of the intestines, and there excites inflammation.* When given along with other remedies, warm cathartics are not likely to do harm. They occasion a healthy action in the secretory apparatus of the primæ viæ, and by exciting the peristaltic motion they cause the other medicines to pass along, and be applied to all parts of the gastro-enteric mucous membrane."

We have never met with more false or contradictory reasoning than is contained in the two preceding paragraphs. We are told that calomel "*increases* the secretion," and "opium *represses* the abundant discharges from the gastro-intesteric mucous membrane," and yet that the combination appears "admirably calculated for fulfilling the indications of cure in the catarrhal form of cholera!" Again, that the colomel "sometimes remains in the stomach and upper parts of the intestines, and there *excites inflammation*," and to prevent this "it may be beneficially combined with *stimulating* cathartics!"

Cold drinks, Dr. C. thinks are clearly counter-indicated in catarrhal cholera; "for there can be no doubt that cold always aggravates, and frequently excites, catarrh; and, moreover, we ought to endeavour, by every means in our power, to restore the natural temperature of the body."

This reasoning is fallacious; cold is a direct sedative, and cold drinks may be often given with advantage while warmth is applied externally. "There appears no reason," however, Dr. C. says, "for withholding tepid drinks from a patient labouring under cholera, and, in fact, their free use is strongly indicat-

ed by many of the symptoms of the disease. They will communicate warmth, diminish thirst, and tend to alleviate the different distressing sensations which may be referred to inflammation of the gastric mucous membrane."

XXV. *Journal des Progrès des Sciences et Institutions Médicales en Europe, en Amérique, &c. Tome XII. Paris,* 1828.

This Journal, of which a volume, containing two hundred and eighty-eight pages, large octavo, is published every two months, was commenced in 1827. It is one of the most interesting of the foreign journals; and is particularly valuable for the information it affords relative to the medical literature of Germany and Italy, for the numerous facts it contains, and for its monographs, which are unusually complete.

Each volume is divided into six sections. The 1st is devoted to reviews of French and foreign medical publications; the 2d, to original monographs; 3d, to critical reviews of medical institutions; 4th, to a general repertory of facts, experiments, and observations; 5th, to necrological notices; and 6th, to critical bibliographs. The reviews are written with great candour and impartiality, and the monographs display much ability and research. The repertory, which is similar to our periscope, (except in the arrangement of the articles, which is alphabetical,) contains a very full summary of facts and observations, selected from the different journals of Europe and this country.

The volume we have before us contains ten reviews; the first is of Dr. Bonerden's Memoir on the Circulation; 2d, of Dr. Ware's Experiments on the Pneumogastric Nerves; 3d, of Dr. Broussais on Irritation; 4th, of Prout's Researches on Diabetes, &c. 5th, of Dr. Pennock's Observations and Experiments on the Modus Operandi of Cupping-glassss in Poisoned Wounds; 6th, of Dr. Rayer's Treatise on Diseases of the Skin, and Drs. Cazenave and Schedel's, and Dr. Plombe's works on the same subject; 7th, of Dr. Schœnsberg's Memoir on the establishment of the Circulation after the Ligature and Section of Arterial Trunks; 8th, Reflections on the Nature of Tetanus; 9th, of Blasius on the Pathogénie of Dropsies; 10th, of Rust on Spontaneous Luxation of the two first Cervical Vertebræ.

The original monographs are three:—1st. On the consecutive effects of punctured wounds on the circulation, by Dr. Leuret. 2d. Anatomy, physiology, and pathology of the spinal marrow, by M. Calmeil. 3d. On the progressive movements of man and animals, by Dr. Chabier.

Next there is in this volume a department headed clinical works, containing a case of accouchement which resulted fatally, in consequence of a fracture and subsequent deformity of the pelvis, related by Dr. Papavoine.

Medical institutions, the succeeding department, is usually a very interesting one; in the present number, however, we find only lists of the prizes offered by different medical societies.

The repertory comprises twenty-nine articles. The volume concludes with a few bibliographical notices, which are however rather meager.

We have frequently enriched our periscope by articles from this Journal, and our readers will find in that department, notices of the most interesting portion of the contents of the volume under notice.

QUARTERLY PERISCOPE.

FOREIGN INTELLIGENCE.

ANATOMY.

1. *Absence of the Thymus Gland.*—Dr. Harrington relates in the *London Medical and Physical Journal*, for February last, a case in which the thymus gland was absent. It occurred in a male child, which at birth was healthy, active, and plump, and sucked strongly on being applied to the breast eight hours after being born. For the first twenty-six hours it remained remarkably tranquil and quiet, but at the end of this period began to moan and be restless, and afterwards passed several motions, which were fœtid and slimy, and contained small lumps of apparently feculent matter, and some coagulated blood. On the third day the dysenteric symptoms continued and the infant was also seized with convulsions On the fourth day the state of the bowels continued nearly the same, and blood was passed with the urine. On the sixth day the child cried much for the first time, was very restless, had dry, red tongue and lips; hot skin, great thirst; taking any fluid ravenously from the spoon; urine high coloured and bloody; motions frequent, watery, yellow, and projected with much force. On the evening of the eighth day the child expired. On examination, several strictures were found in different parts of the intestinal tube, and the colon and rectum throughout presented the characters of intense inflammation. The liver was very large and congested with blood, as was also the right kidney. The remaining abdominal viscera were healthy. The heart and lungs were perfect. *No trace of a thymus gland could be discovered.*

2. *Zonula Zinnii in the Human Eye.* By Professor M. J. Weber, of Bonn. —Anatomists have greatly differed as to the nature of this part of the eye. Thus Lieutaud, Cassebohm, Ferrein, &c. consider it as a continuation of the retina; Winslow, Zinn, Meckel, Hempel, Bock, and a majority of modern anatomists, as an appendage of the hyaloid membrane. Rudolphi asserts, that it is a distinct membrane; his opinion was adopted and sustained by Doellinger, and M. Weber also coincides in it. He has found that diluted nitric acid, which gives to the retina a yellowish tinge and greater thickness, does not produce those effects on the zonula; and, consequently, it is not a continuation of the retina: another fact which tends to the same conclusion is, that when the retina attains the external edge of the zonula, it can be separated from it without tearing; and, instead of confounding itself with the tissue of the zonula, its edge is reflected backwards and inwards towards the hyaloid. M. Weber has seen this reflection in the eyes of an infant of from two to three months old; and he thinks, that in more advanced age, this termination of the retina is effaced from the mutual adherence of the two lamellæ of the reflection. Finally, in the eyes of the subject the zonula was in an abnormal state, whilst the retina, vitreous body, hyaloid membrane, &c. were all in a normal condition. The zonula was in the form of a beautiful grayish-white, opaque ring; its external and

crenulated edge was dove-tailed in some degree with corresponding crenations in the retina, which formed the reflection spoken of above, to the extent of half a line.

Examined under a miscroscope of two hundred and twenty magnifying power, the zonula appeared to be formed of a medullary substance, which was almost homogeneous, with rudiments of globules; the arrangement of these elementary parts offered a rayed appearance, but without any distinct fibres. The retina was distinguishable from it by its greater thickness, and the absence of this radiated structure.—*Ferussac's Bulletin, Nov.* 1828.

3. *Anterior Termination of the Retina.*—Dr. Schneider, of Munich, has found that the retina does not terminate in an enlarged border, near the external edge of the ciliary body, as has generally been supposed, but that when it arrives at that point, it is continued without interruption towards the axis of the eye, and terminates near the crystalline by a free edge which is not attached to the crystalline capsule. This continuation of the retina is situated behind the ciliary body, and before the zonula zinnii. It forms a thin and delicate medullary lamina covered with pigmentum nigrum. This pigmentum is thinner and thinner as it approaches the crystalline, and is entirely wanting on the free edge. At the distance of two-thirds of a line from the crystalline, the retina again thickens, and assumes a very white colour, and appears to the naked eye like a flaky circle of about two-thirds of a line in width, presenting, at unequal distances, elevations and depressions to the number of seventy or seventy-five. The internal edge of this circle appears cut off, and is closely applied to the edge of the capsule of the crystalline. Under the microscope the small flakes have the appearance of conical bodies studded with minute elevations, resembling the nervous papillæ of the tongue. The structure of these different parts of the retina is perfectly identical.—*Ibid.*

PHYSIOLOGY.

4. *On the supposed Existence of Active Molecules in Mineral Substances.* By Robert Bakewell, Esq.—In our last number, p. 200, we published a notice of the supposed discovery, by Mr. Brown, of active molecules in mineral substances. We felt well convinced at the time that there had been some error, being aware of the numerous ones to which microscopical researches are liable, and we are now happy to point out some interesting observations and experiments by Mr. Bakewell, which disprove this imagined discovery, and show some of the circumstances from which it probably originated. "I have made," says Mr. B. "repeated observations on several mineral substances, which Mr. Brown says are chiefly composed of these active molecules; and though in some instances I was at first persuaded that I had seen the motions of the molecules similar to those of the smallest species of Infusòria, a more careful examination proved that I was mistaken, and that the motions were derived from causes that had not been properly appreciated. In these experiments it is absolutely requisite to employ fresh distilled or fresh boiled water. The Thames water and water in cisterns generally contain numerous animalcules. I chiefly made use of single lenses from one-twelfth to one twenty-eighth of an inch focal length, varying in magnifying power, from 100 to 220 times in linear dimensions: the use of the compound microscope is, I think, inadmissible in such delicate observations. With the lowest of the above-mentioned powers, a particle less than one-twenty-thousandth part of an inch in diameter is distinctly perceptible, and the form of a particle of twice that diameter may be observed. To make use of higher powers than what are absolutely required, renders the examinations more difficult, and the result more uncertain.

"To obtain glass in a highly comminuted state, I took the powder-blue used

by laundresses, which I still further triturated. The small portion of the oxide of cobalt which enters into the composition of this glass, could not be supposed to paralyse the action of the molecules, as all the metals that can be reduced to powder are said to contain these active molecules.

"By making use of powder-blue, I had the advantage of seeing when all the larger particles were deposited. Among other substances which I more particularly examined, were finely powdered adhesive slate, mountain cork, quartz, flint, and kaolin, from a specimen of the best kind used in the manufacture at Sevres, given me by M. A. Brogniart. When a drop of water containing any of these substances was placed under the microscope, I perceived particles in motion, which continued for some time, and then was scarcely discernible, but on laying my hand upon the table the motion recommenced, and was evidently produced by a current in the drop; although many particles appeared to be more influenced by it than others, which occasioned a change in their relative positions. Hence I became convinced, that in order to make the experiment properly, the microscope should be placed on a support not liable to be affected by vibrations of any kind, and I therefore placed the instrument on a support made for a telescope stand, so constructed as to prevent vibration when examining the more delicate double stars. I found that even the pulsation of my body occasioned an oscillatory motion of the particles, when the microscope was placed upon a table. After repeated trials, I became satisfied that whatever motions may appear to take place among the particles, for some time after the drop of water is first placed under the microscope, they will soon subside, if not kept up by agitation from external causes. In London, as an excellent practical philosopher, the late William Nicholson justly observed, it is scarcely possible to avoid the effects of vibration; this may be seen by the continual tremors visible on the surface of mercury placed in a basin. Now, if the particles of dust that fall on the surface of the mercury could be brought under a powerful microscope, they would appear in constant motion. Let us suppose the mercury to be changed for water, a similar effect will take place, and the particles that may sink under the surface will represent the particles of dust in a single drop; and Mr. Brown informs us that the whole of the London dust is composed of active molecules. I am fully convinced, however, that their activity in a drop of water, as well as when dancing in the sunbeam, is derived from external agitation. The very force of gravity constantly drawing the particles downwards must not be overlooked, for it is not contended that the vitality of inorganic particles is sufficient to keep them permanently suspended in water. The observer's breath, and the constant evaporation of the drop, have also a tendency to produce counter-currents. A drop of water placed under the microscope, may be regarded as equal, in apparent magnitude, to a quart of the same fluid in a water-glass, and will be subject to the various currents that may be produced by agitation in the larger quantity; but the slightest movement which occasions a displacement of the particles, even the thousandth part of an inch will, under a high magnifying power, make them appear to perform a long voyage. Some of the animalcules discovered by Lœwenhoeck, the motions of which excited so much surprise, he informs us, never travelled farther than a hair's breadth.

"It is highly improbable that we shall ever be able to reduce mineral substances to their ultimate molecules by pulverization. Their essential qualities remain the same after pounding as before; and, could we construct microscopes that would magnify twenty thousand times in linear dimensions, we should see in pounded quartz, flint, &c. fragments and pebbles the size of walnuts, exactly resembling those of the same minerals at the foot of a mountain, and it is difficult to believe that they would gain active moving powers by simple immersion in water. Still the philosophical world is greatly indebted to Mr. Brown, for having directed the attention of naturalists to this curious subject. About ten years ago, I was informed that Mr. Bywater, an ingenious optician, now residing in Liverpool, had discovered moving animalcules in coal-ashes, pounded marble, and other mineral substances. Little interest was then excited by the sup-

posed discovery; it required an eminent naturalist, like Mr. Brown, whose merits are well known and highly appreciated in his own country, and on the continent, to direct public attention to statements so much at variance with our preconceived notions of matter. If, contrary to my expectation, after all due caution in the observations, it should be finally established that mineral substances are composed of active molecules, what new views of nature will the discovery unfold! Beds of siliceous sand, like those on our Hampstead Heath, are only awaiting a further process of trituration, to be awakened into life by the torrent that shall bear them into the ocean; and the geologist, while he contemplates the organic remains of a former world embedded in solid rocks, must regard the rocks themselves as the parents of future living beings. But who shall presume to say that we have at present discovered all the properties which the Creator has communicated to material substances? It should be borne in mind, that less than a century since, latent heat, electric and galvanic energy, and crystalline polarity were unknown as important agents in nature; and that philosophers attempted to explain the phenomena of thunder-storms, and even of vital action, on mechanical principles. It will not be denied that many important processes take place in the mineral kingdom, which cannot now be explained by the agency of known causes, but await the discovery of other principles for their satisfactory elucidation.

"As it is probable that many persons may be desirous of entering this new field of inquiry, it will materially assist them in forming an accurate judgment of what they observe, to provide pepper water, and other vegetable or animal infusions, that they may from time to time compare the motions of the real Animalcula infusoria with those of the supposed active molecules; and, if modern philosophy did not disdain to profit by the illustrations which common life frequently offers, I would recommend them to look attentively at the bubbles, or the crumbs that float on the surface of a basin of tea, and they will soon be convinced, that change of relative position is not a sufficient proof of spontaneous motion or vitality."—*Magazine of Natural History, March*, 1829.

—

5. *Case of Five Children at a Birth*, furnished by Dr. Weiss, and communicated to the Clinic by M. Carus.—A woman, twenty-seven years of age, who had been married five years, of a middle stature and robust constitution, after having given birth to twins two years before, was put to bed with five children. The regular period of pregnancy was passed, and nothing in particular occurred, except that the woman felt herself more feeble than usual, with less inclination to eat or sleep. The abdomen had been very much distended, especially on the right side. The movements had been chiefly felt on the left side. The birth of the first child was very easy, and took place soon after the formation of the watery sac. The others came more slowly, and the last with much the most difficulty. Each was enclosed in a separate sac, and immediately followed by its particular placenta. All were born with the head presenting in the first position. The first that came were two boys, then a girl, next a boy, and then a second girl. Not one of them survived the third day. Their general length was from fifteen and a half to sixteen and a half inches. The second boy did not weigh two pounds after its death. Although all were regularly formed, they did not appear to have attained perfect maturity. With the boys, the umbilical cord was sixteen inches long, but only twelve with the girls; pulsation in it could scarcely be perceived at the moment of birth. The children had an old look; their voice was tremulous; they slept continually; and their temperature was very low. The mother, although very feeble, soon regained her health.—*Gemeinsame deutsche Zeitschrift für Geburtskunde.*

—

6. *Case of a child born with a Tumour of considerable size upon the Occiput, with Parencéphalocele.* By M. Brouissaux, (Leger,) M. D.—A healthy young woman, on the 23d of August, 1824, gave birth to an infant with a tumour upon its occiput as large as its head. The development of the tumour was attributed to a contusion received by the mother upon the abdomen, in the first months

of pregnancy. The child lived fourteen hours, in a state of almost absolute insensibility and immobility. All the muscles depending upon cerebro-spinal influence were paralyzed; sucking was impossible, and deglutition could hardly be effected when milk was poured into the infant's mouth. The alvine evacuations took place naturally; the eyelids were constantly closed, and the ball of the eye remained immoveable; the pulse could be felt, though very feeble; the motion of the thorax in respiration was very slight. The tumour, which was nearly round, soft, opaque, and ulcerated in many places, presented a neck one inch in length and three in circumference; on grasping it, especially towards the cranium, a greater resistance was felt than in any other part.

The child died, when on opening the tumour, it discharged about four ounces of corrupted blood. On extending the opening, a tumour of a lively red was perceived, of the size of a turkey's egg, the opening of which gave exit to a considerable quantity of very thick black blood, and of three clots of the same colour and of the size of a hazle-nut. This second tumour communicated with the brain, through an opening situated behind the great occipital foramen. It gave passage to a portion of the medulla oblongata, six lines in length, which presented no signs of alteration either in colour or structure.

The meninges appeared to have been the seat of inflammation, as well as the cerebral substance itself. Each of the ventricles contained about a drachm of a sanious fluid.—*Revue Méd. December*, 1828.

—

7. *Superfœtation in a Double Uterus.*—A woman, pregnant for the seventh time, aborted in the fifth month. A dead fœtus, eight inches and a half long, was first expelled, then an embryo, supposed of three months, showing some signs of life, and three and a half inches in length. The two placentæ were afterwards discharged one after the other. The midwife, after an attentive examination, found that the vagina and neck of the uterus were natural, but that beyond the exterior opening of the latter, were two orifices, each leading to a distinct uterus. This case is attested by Dr. Duges.—*Journal des Progrès, Vol. XIII. from the Emphémérides de Montpellier.*

—

8. *Destruction of the Right Hemisphere of the Brain, with Hemiplegia of the left side, the Intellect unimpaired.*—In *La Lancette Française* there is related the case of a man aged thirty-two years, who died with the usual symptoms of phthisis pulmonalis, which, as well as disease of the heart, was ascertained by post mortem examination. The patient had also hemiplegia of the left side, and on opening the cranium, to seek the cause of this affection, it was perceived that a considerable mass of fluid was poured out between the brain and cranium. The hemisphere of the right side was wasted and reduced to a mere membrane; the cerebral substance had disappeared; the optic and olfactory nerves of the right side were shrunk, as were also the corpora olivaria and tubercula quadrigemina of the same side. The intellects of the patient were unimpaired.

—

9. *Case of Anaesthesia or loss of Sensation, unattended with corresponding loss of Motion.* By Alexander Reid, Esq. Surgeon.—The following case is extremely interesting, as proving that the sentient principle may be annihilated, while that of motion may continue almost entire; thus furnishing strong evidence, in addition to that already collected, of the truth of the physiological doctrines of the double functions of the *medulla spinalis*, promulgated by Mr. C. Bell and others.

Mr. Walker, aged fifty-six, tall, and remarkably stout made, was a land-surveyor in Jamaica, where he resided twenty years. About the year 1802, he had a severe fall from his horse, which fractured some of his ribs, greatly injured his back bone, and rendered it necessary for him to be confined on his back for several weeks; and it was not until some time after the expiration of this period that he was able to walk about. He however recovered gradually, "and was at length able to attend to his business as formerly, although he felt at this time

a numbness commence in the right hip, and which extended down to the great toe of the same side of the body. Nearly two years afterwards he sprained the muscles of the back, situated over the lumbar vertebræ, while in the act of leaping a broad ditch. He could not move his body in the least degree, without causing him severe suffering in the affected part; and, upon his recovery, he found that the numbness of the right leg was rather increased, although he acknowledges that he felt but little inconvenience in going about his usual avocations from this circumstance.

"Nothing of interest happened him till the year 1812, when cold brought on an attack of erysipelas in his right leg and foot, and which afterwards affected his left leg also. Both legs at this period felt benumbed, and were insensible to the prick of a pin. His left foot became the weakest of the two, his limbs occasionally swelled, and were also covered with a disagreeable eruption. When he was in the warm bath, he could not say whether the water was cold or hot, until immersed above mid-thigh, even although his feet and legs were in this condition; and, to use his own words, 'felt as if covered with a stocking or boot, or as if sleeping.' He was, nevertheless, able to take proper exercise.

"In 1815, he was advised by his medical friends to try the effects of a sea voyage, and a residence in his native country. He arrived in Scotland about the beginning of July, when he felt both body and mind in a vigorous and healthy condition, with the exception of the want of feeling, which was still increasing throughout the body. After taking medical advice both in London and Edinburgh without receiving any benefit, he was obliged to go back to Jamaica on pressing business. After his arrival there he thought himself a little better. This amendment, however, was not permanent. He found the heat when exercising in the sun almost insupportable—quite different from what he formerly felt it. Unfortunately, he at this time jammed his right foot betwixt the gunnel of a boat and the ship's side, which bruised the foot, injured the metatarsal bone of the little toe, and brought on a troublesome sore. This circumstance was the cause of frequently laying him aside from taking his accustomed exercise in the open air, and which he conceived materially injured his general health. He again returned home in 1818 worse than when he left Scotland. In 1822 it was found absolutely necessary to remove the metatarsal bone, which had become carious and otherwise diseased, from its giving rise to repeated attacks of constitutional irritation. From the performance of this operation, productive of great suffering, Mr. Walker declared he felt not the smallest degree of pain, more than if it had been dead matter which had been operated upon. The sentient power is at present nearly, if not completely annihilated over the whole surface of the body; while the power of motion, although impaired, is yet so entire as to enable him to use his hands in carving his food, in writing, in holding the reins when on horseback, &c. He is also able to walk a short way, even without a staff. In answer to some queries which I put to him, he says, 'the want of feeling continued to increase slowly, and from my legs extended to my hands and arms, till I lost the feeling of finger after finger. The skin of my brow and head is also affected. I feel with nothing but my mouth, that is to say, I am incapable of telling whether any thing I touch is cold or hot, rough or smooth. I am generally speaking in possession of my ordinary functions. With regard to the sensation of my feet and hands, (and these I am at a loss to describe,) when cold, which they generally are, they feel heavy and stiff. When attacked with rheumatism, or when blistered from incautiously going too near the fire, an accident of which I am not conscious at the time, or when matter is gathering, they feel as if tight bound in a boot and very heavy, accompanied with restlessness and stretching all over the body. This was exactly the sensation produced by the collection of matter which so often took place from the diseased bone. I felt no pain whatever when you extracted the bone from my foot; nor would I now, I am convinced, were you to dissect the whole foot. When driving or riding, I cannot tell, unless I see, whether or not

I hold the reins or whip. My taste, smell, and hearing are perfectly entire. My sight is weak. Occasionally my eyes are slightly inflamed, and water a good deal. This I attribute to a difficulty which I have in shutting my eyelids from a want of perfect power in them. My feet and hands are to a certain extent paralyzed, that is to say, I have not the same power of motion in them which I had in a state of health, nor even a few years ago, when the want of feeling was nearly as great as it is at present.'

"In this interesting and singular case, Mr. Walker is a living instance of abolition of the sentient power, not only in the skin, but also in the deep-seated muscles, tendons, and ligaments, as was exemplified in the operation for the removal of the metatarsal bone, while the power of the nerves of the other external senses remain entire, and perform their functions in a perfect manner. The internal functions obey the will, and each one acts correctly under the influence of their peculiar stimulus as in a state of health; even the *sensorium commune* is fully adequate to carry on its intellectual operations in a very perfect degree. The motive power, which at first was little affected, appears now to be getting involved in the wreck of the sentient. The motions of the muscles of the eye, particularly the *orbicularis oculi;* of the *levator* muscles of the mouth; of the extensor muscles of the hands and fingers; and the extensors of the foot and toes, are imperfect; nevertheless they are to a limited extent still under the command of volition."—*Ed. Med. and Surg. Journ. April*, 1829.

—

10. *On the Physiological Effects of Oxygen Gas upon the Animal System.* By S. D. Broughton, Esq.—Although it has long been known that the respiration of pure oxygen gas is destructive to life, some differences of opinion have existed with respect to the physiological conditions of the animals subjected to its influence; and also with regard to the quantity of oxygen consumed under these circumstances, compared with that consumed by the respiration of atmospheric air. With a view to elucidate some of these points, Mr. B. confined rabbits, Guinea-pigs, and sparrows, in glass jars, inverted over water containing oxygen gas, obtained from black oxide of manganese by a red heat. The animals at first appeared to suffer no inconvenience from the respiration of the gas; but after some time, (generally in about an hour,) their breathing became hurried, and their circulation accelerated. This state of excitement was followed by an opposite one of debility; the respirations became feeble, and were more slowly performed; loss of sensibility and of the power of voluntary motion gradually supervened, till the only remaining visible action was a slight one of the diaphragm, occurring at distant intervals. On opening the body under these circumstances, and also after the entire cessation of the movements of the diaphragm, the breast was found to be still in vigorous action; the blood in every part of the vascular system, both venous and arterial, was of a bright scarlet hue; it was remarkably thin, and rapidly coagulated; and the temperature of the body continued undiminished. If, before the diaphragm has ceased to act, the animal is removed from the vessel to the open air, it generally either recovers spontaneously, or its animation may be restored by artificially inflating the lungs with atmospheric air. Mr. B. found that the gas in which animals had thus been confined till they died, retains its power of rekindling a blown-out taper, and of sustaining for a time the life of another animal introduced into it; and he hence deduces the inference that it does not contain so great an excess of carbonic acid as the gas left when animals have perished by confinement in atmospheric air. He considers the train of symptoms induced by the respiration of pure oxygen gas as analogous to those which follow the absorption of certain poisons into the system.—*London Medical Gazette, May*, 1829.

—

11. *Silver found in the Viscera of a Person who had used the Nitrate of Silver.*—Dr. Wedemeyer, of Hanover, has published in *Rust's Repertorium*, the case of an individual who used the nitrate of silver internally, for the cure of epilepsy; the disease was removed, and the skin assumed a blue colour. The patient was

afterwards affected with disease of the liver and dropsy, of which he died. On post mortem examination, all the internal viscera were found more or less stained of a blue colour, similar to that of the external surface. The plexus choroides and pancreas were submitted to chemical examination by M. Brande, and a portion of metallic silver obtained.

12. *Functions of the Intestinal Canal and Liver in the Human Fœtus.*—"A very interesting paper on the above subject was lately read at the Royal Society by Dr. Lee. From the circumstances of the early development of the liver and intestines of the fœtus, of the copious supply of blood which they receive, and of the great space which they occupy in the abdomen, the author was led to the conclusion that they performed some important functions in the fœtal economy. Although no nutritive matter can be furnished by the mouth, yet the contents of different portions of the alimentary canal were found, both in appearance and chemical composition, to have a striking analogy to those of the same parts of the canal in the adult, where the processes of assimilation and absorption are performed. A semi-fluid matter, possessing all the characters of albumen, is found closely adhering to the inner walls of the small intestine, and is more especially abundant around the papillary projection, through which the common duct of the liver opens into the duodenum, and diminishes in quantity as we trace it towards the termination of the ileum. The great intestines are generally distended with a dark green homogeneous fluid, containing no albumen, and apparently excrementitious. No albumen can be detected in the contents of the stomach: hence the author infers that an absorption of some nutritious substance, (which he brings forward several arguments to show must be derived from the liver,) takes place from the intestinal canal in the latter months of gestation. He states that in two instances he detected the presence of a substance similar to that which he had found in the duodenum, in the hepatic duct itself. Hence he is led to the conclusion that the function of the liver in the fœtus is not confined to the separation of excrementitious matter from the blood, but that it supplies materials subservient to nutrition. That the substances existing in the intestines of the fœtus are not derived from the mouth, is proved by these being equally found in encephalous children, or where the œsophagus is impervious, as where no such malformation had existed.

"A note is subjoined to this paper by Dr. Prout, giving an account of the mode by which he ascertained the chemical character of the substance referred to in his examination. The paper is accompanied by drawings of the intestinal tube in the fœtus."—*Philosophical Magazine.*

PATHOLOGY.

13. *Case of Colica Pictonum.* By Edward Barcome, Esq. With remarks by Staff-Surgeon Doyle.—We present the following case solely for the purpose of enabling us to lay before our readers the very judicious remarks which are appended to it by Mr. Doyle. We would particularly request attention to these remarks, as an excellent specimen of sound physiological reasoning, as illustrative of the philosophical views of disease taught by physiological medicine, and as pointing out an important practical error in the treatment of colica pictonum, to which routine practitioners, and those whose intelligence has not kept pace with the progress of science still pertinaciously adhere; viz. the attempting to open the bowels by drastic cathartics, thus aggravating the mischief; instead of resorting to measures calculated to subdue the active inflammation of the intestines.

"William Lynch, aged twenty-seven, of a spare habit, by trade a tailor, states that on Friday last, (five days back,) while at breakfast, he felt a disinclination to eat, and nausea; soon after, his bowels became affected with slight wander-

ing pains, and, on going to the privy, he could not evacuate any thing. He took a dose of salts, which was repeated, without producing any effect on the bowels. The symptoms increased, and some rhubarb and calomel was taken: still no evacuation from the bowels. Vomited, soon after swallowing the powder, a large quantity of a greenish and bitter fluid.

"Is now suffering greatly, tossing about in the bed, and cannot remain a moment in one position; says that he feels as if his belly will burst; cannot bear the slightest pressure on the abdomen, which is very tense. Head-ache; thirst insatiable; tongue white and coated with mucus; mouth parched and dry; acid eructations; difficult micturition; urine high-coloured; pulse full, tense, and frequent; temperature below the natural standard; cold clammy sweat; nausea, and vomiting of a greenish and bitter fluid. Has not slept for six nights; great prostration. Fiat venæsectio ē brachio, stat. ut sang. emittatur ad ℥x. dein applicetur scarificator, epigast. et region. umbilic. ad extract. sang. ℥xviij. Foment. calid. toto abdomini. Adhibeantur enem. emollient. omni semi-hora donec alvus bene respond. et habeat pro potu ordinario; decoct. hordei, &c.

"Two P. M.—Says that he feels something easier; thirst not so urgent. The sixth enema, on coming away, was discoloured in a trifling degree. Abdomen less tense, but painful on pressure; pulse more natural; skin cool and comfortable. Iterum appl. scarificator, toto abdomini ut sanguis extrahatur ad ℥xxx.; et continuantur foment. potus enemataque.

"Eight P. M.—Bowels have been evacuated six times since last visit: a large quantity of very fetid matter discharged, having the appearance of oil and indurated feces. Says that he does not feel any pain, but a soreness, as if his belly had been scraped inside. Pulse soft, but rather frequent; thirst moderate; urine high-coloured, but passed without difficulty. Perspires freely. Cont. potus foment. enemataque.—℞. Extract. opii, gr. ij.; Pulv. Jacobi, gr. iss. M. fiat pilula, hora somni sumenda.

"*October 24th*, morning.—Bowels have been evacuated four times since evening, evacuations more natural. Pulse regular; temperature natural; thirst moderate; tongue clean and moist. Says that he feels comfortable; has slept about four hours the last night. Cont. potus enemataque sed omitt. foment.

"*25th.*—Is convalescent.

"*25th.*—Improving. Ordered to continue on low diet for a week: arrow root, jelly, sago, light soups, &c.; and to open the bowels, if necessary, with emollient enemas.

"*Reflections on the foregoing case, by Staff-Surgeon Doyle, Bermuda.*—It is to be lamented that nothing is said by the practitioner of the idiosyncrasy of the patient; whether he was of the sanguine, bilious, or nervous temperament; whether irritable, calm, or phlegmatic; what complexion, &c.; what previous malady or affection he had undergone, &c.: for all these are of importance to etiology, and to the study of the excitation of the different organs, if, as Bordeu and Bichat have told us, all the tissues of which the animal economy is composed have each of them a peculiar mode of action; a life, in fact, peculiar to itself. This action is susceptible of aberration; and it is in this that all pathology must consist, says Broussais. Now, in order to render this important case instructive and profitable to medical science, it will be best to subject the group of symptoms which characterizes it to a rigid analysis, in order thereby to arrive at a knowledge of its true nature.

"It appears that five days before, (23d October,) this patient had a predominance of (morbid) irritation in the *stomach*, a viscus capable of exciting the greatest number of sympathies; for sensibility and contractility being distributed in different degrees in the divers tissues which make up the living organism, those which possess it in the highest degree receive the immediate action of stimulants and transmit it to others. They are, for this reason, the natural movers of sympathies. The gastric disturbance was manifested by anorexia and nausea: this disturbance is rapidly communicated to the intestines, both smaller

and larger; for, the more the sensibility of the irritated organ and that of the individual are considerable, the more the sympathies are multiplied, and vice versa. This propagation of the gastric irritation into the intestines occasions the wandering pains in the bowels and the desire to go to stool. The morbid congestion having invaded the ileo-cœcal valve, the ileum cannot force its stercoral contents through it: hence costiveness and the inability to pass any feces when at the privy. The two doses of salts, taken with a view to obviate this costiveness, in place of acting as a purgative, only aggravated the distress, by causing over-excitation of the stomach and intestines. Then follow the rhubarb and calomel, which continued to add to the over-stimulation of the stomach, which, being thus excited to the highest, discharged its contents, together with the secretions of its glandular appendages, the liver, spleen, and pancreas. Hence the vomiting, soon after swallowing the powder, of a large quantity of a greenish and bitter fluid: in fact, this over-stimulation performs the office of an emetic, and thereby operates a partial revulsion of the morbid congestion. This partial revulsion procures a mitigation of the symptoms, and an alleviation of the sufferings of the patient, which lasts four days; at the end of which, the morbid sympathies, which have never been completely appeased and removed by any rational treatment, are aroused to an alarming activity, which may cause a rapid death through their excess, owing to the congestion and the disorganization of many viscera.

"On the fifth day, when the practitioner is called, he finds the patient suffering greatly, tossing about the bed, and cannot remain a moment in one position; says that he feels as if his belly would burst; cannot bear the slightest pressure on the abdomen, which is very tense: all which denotes that inflammation has invaded not only the mucous, sensitive, digestive surface of the intestinal canal, which causes tumefaction of the viscera, but it has also propagated itself to the serous membranes, particularly the peritoneum; a membrane rich in nervous expansions, and of exquisitely acute sensibility when suffering under active inflammation. Hence the tension and the impossibility to bear pressure on the abdomen. The head-ache denotes the participation of the sensorium, sympathetically irritated by the transmission to it of the sufferings of the viscera. The insatiable thirst denotes the inflammation predominating in the *ileum*;* for, as there are two forms under which gastro-enteritis presents itself, I shall designate them here, in order to fix the seat of this terrible malady, with as much precision as I am master of. The first form is that of predominancy of the gastric phlegmasia, which is characterized by gastric pain, by the aversion for ingesta, and the rejection of and the difficulty of supporting them. The second form is with predominancy of enteritis, or, (as I understand it,) of inflammation of the smaller intestine, (ileum;) for this insatiable thirst, and the rapidity with which the appropriated liquids are absorbed, characterize the second form: therefore I would infer that enteritis is predominating. The tongue white and coated with mucus, the mouth parched and dry, and the acid eructations, denote the complication of gastritis. The difficult micturition, and urine high-coloured, denote the sympathetic participation of the urinary organs in this rapid and alarming phlegmasia. The pulse full, tense, and frequent, denotes the sympathetic participation of the heart, which is prevented thereby impelling the blood with measured force, and has its action precipitated. The temperature below the natural standard denotes the concentration of animal heat to be all in the inflamed viscera; too much vitality for the moment in the internal, and too little in the external tissues. Same cause for the cold sweats. The nausea and vomiting of green bitter fluid denote association of gastritis. The want of sleep and great prostration denote the participation of the brain in the inflammatory suffering of the viscera.

"I have thus gone through the whole group of symptoms detailed by the

* This we suspect is an error; at least the fact requires confirmation.—*Ed.*

practitioner, and have endeavoured to analyze them according to the views of modern physiology, as it applies to pathology, in order to fix, with as much certainty as possible, the attention of our medical brethren upon the nature and seat of a malady so fatal as that denominated dry belly-ache of hot climates.

"The intestines have for too long a time been considered, when in a state of disease, only as conduits, more or less dirty, more or less filled with acrid irritating matters; the vapours of which, it was pretended, arose to disturb the brain. Under these views, the diseases of the intestine were reduced to two forms: first, the superabundance and the too great frequency of the dejections; secondly, the retention, the rarity, the thinness of these same dejections: in short, the two prevailing morbid states were *diarrhœa* and *constipation*. When blood was joined to the stercoral matters voided in diarrhœa, the name of *dysentery* was given to it; and, when vomiting accompanied the dejections, it was called *cholera*, and all the different shades of *lienteria, cœliac flux, hepatic flux, melæna*, &c. The pains which appeared to have their seat in the intestines were called *colic; ileus*, or *iliac passion*, when the fecal matters were voided by the mouth. The name of *tenesmus* was given to the sensation of tension referred to the anus. The presence of *worms* was added to this nomenclature; as was also the *intestinal tympanitis, hemorrhoids*, &c., and finally came *enteritis*.

"From a more correct acquaintance with this latter disease, we know that, with the exception of mechanical derangements, all the affections above enumerated, and even more, belong, directly, or indirectly, to morbid irritation, to the inflammation of these viscera; that ulceration, schirrus, intestinal cancer itself, is a consequence of enteritis or colitis. It is thus that we see daily the important part which the intestines play in the *production of fevers*. In short, the knowledge of this important fact is one of the keys to physiological pathology, that 'so soon as *local* morbid irritation arises to a certain degree, it repeats itself, and is propagated into other systems, or into apparatuses more or less distant from the primitive focus, and always without changing its nature.'

"This fact discovers the secret tie which links the slightest with the most serious maladies. It fills up an immense blank which existed in medical science from the remotest antiquity; it destroys that insulation of the divers shades of irritation, which may be regarded as the source of medical ontology; it reduces to their just value all the distinctions established by nosologists.

"In this case, so successfully treated by my friend, Mr. Barcome, I would, in place of colica pictonum, designate it gastro-entero-peritonitis; and I will venture to affirm, that, had the case terminated fatally, dissection would have shown the ravages of the inflammation to have been confined chiefly to the viscera from which I have designated it, and that the colon was but little or nothing inflamed; for it is not until inflammation passes the ileo-cœcal valve that colitis attended with diarrhœa supervenes; whereas, in the case before us, costiveness prevailed, which is the characteristic of enteritis, or inflammation of the small intestines.

"But, perhaps, one of the most important facts for medical science, to be gained from the contemplation of this case, is this, viz. that, in intestinal inflammation, local depletion, antiphlogistics, and emollients, are the real purgatives. For it was not until a reduction of the morbid congestion, effected by their means, was brought about, that any fecal matters could pass into the cœcum through the inflamed opening of the ileum; the drastics, given with a view to purge, only aggravated the inflammation, and added to the danger."—*Lond. Med. and Phys. Journ. April*, 1829.

—

14. *Rare Species of Dysphagia.*—This species of dysphagia was attributed by Valsalva, who was the first to describe it,* to a luxation of the cartilaginous appendices of the os hyoides. The disease was brought on, in the instance met with by Valsalva, by the deglutition of a hard and large substance; but in two

* In his treatise de Aure Humana.

cases described by MOLINELLI* it was produced by strong pressure on the anterior part of the neck. A fourth case has been recently published by Dr. MUGNA, in the *Annali Universali di Med.* November and December, 1828. These, as far as we know, are the only cases on record. Whether the disease is really as rare as this would seem to indicate, we are unable to say; but even if it be so, it is proper that our readers should be acquainted with the symptoms and the proper mode of treatment, and we shall therefore transfer to our pages the account of the last case by Dr. Mugna.

A person, aged sixty, in swallowing a large piece of tendon of beef, which he had imperfectly chewed, experienced suddenly a sensation of pain, as if the piece of tendon had been arrested at the entrance of the œsophagus; the patient was quickly tormented with continual but ineffectual efforts at deglutition, not being able to swallow even his saliva or a drop of fluid. Dr. Mugna, who was immediately sent for, found the patient fatigued by his efforts to swallow, which were incessant; the pain became more and more severe; when the patient had exhausted himself by his efforts to swallow, a noise similar to that produced by air rising from the œsophagus was heard. The respiration and voice were perfectly natural, and no change was observed in the form or appearance of the throat or neck. A sound was easily introduced into the œsophagus beyond the point where the patient experienced the sensation as if the tendon was stopped. The most attentive examination with the sound could not discover any obstacle at this spot, nor was any relief afforded. The place indicated by the patient as the one where he supposed the foreign body arrested, was precisely that occupied by the os hyoides. Dr. M. being satisfied that there was no foreign body there, thought that the dysphagia was owing to a displacement of the os hyoides; he accordingly introduced the first and second fingers of his right hand into the throat of the patient, beyond the base of the tongue, and moved in different directions the os hyoides, while at the same time he kept the left hand applied to the front of the neck and upon the os hyoides. The painful sensation speedily disappeared, and immediately afterwards the patient could swallow. Two years afterwards, in swallowing a large piece of cake, this dysphagia returned, but was promptly removed by the same measures which proved successful in the first case.

The precise nature of the displacement of the os hyoides producing this disease, has not been satisfactorily ascertained.

—

15. *Dropsy of the Pericardium.*—The *London Medical and Physical Journal*, for May last, contains an account of a case of dropsy of the pericardium, by F. W. WOOD, Esq. in which the pericardium contained *two quarts* of a perfectly limpid fluid. We may mention also that "the outer coat of the pericardium had a thin shining appearance, whilst on the inside were deposited layers of coagulable lymph, resembling the rugæ on the stomach of a cow. The heart was also covered with a similar deposit; its parietes were much thickened, and it appeared as if fore-shortened, the apex being pressed upwards. In the left ventricle was a portion of coagulable lymph, of a yellow sizy appearance, of nearly an ounce weight. The carneæ columnæ were much enlarged; the valves free from any apparent disease. The structure of the lungs was perfectly unimpaired."

—

16. *Inflammation of the Umbilical Vein with Infantile Erysipelas.* By ROBERT LEE, M. D.—"An infant, four days after birth, was attacked with erysipelatous inflammation of both forearms, and severe febrile symptoms. Two days after the first appearance of redness and swelling of the integuments of the arms, a similar affection was perceived in those of the hypogastrium, genital organs, and upper part of the thighs. The child died on the twelfth day subsequent to birth, and was examined on the 18th of November, 1828, two days after death.

* Comment. Bononiens. Scient. et Art. inst. Acad. Tom. V.

"The cellular tissue of the affected parts was highly vascular, and in the inguinal regions infiltrated with serum. On opening the abdomen, the peritoneum covering the different viscera was found in a healthy condition; but the umbilical vein, from the navel to the liver, was preternaturally indurated and distended. On laying it open, a yellow-coloured purulent fluid escaped, and the whole of its interior surface was found lined with a layer of closely adhering lymph: this coating of lymph extended into the principal branches of the umbilical vein, proceeding to the liver, and along the ductus venosus, as far as the vena cava. The umbilical vein and ductus venosus remained pervious, and there was no morbid appearance in the vena cava above or below its entrance. The coats of the umbilical were much more thickened than they are usually found to be at the same period after birth.

"Morbid appearances of the umbilical vein in young children, similar to those which I witnessed in the foregoing case, have not been described by any pathologist in this country, as far as I have been able to ascertain. In the writings of Gaithshore, Bromfield, and Underwood, we find little, indeed, that is satisfactory, respecting either the nature of infantile erysipelas or the alterations of structure which accompany it. That inflammation and suppuration of the umbilical vein and its branches not unfrequently occasion fatal erysipelas, or death, without any inflammation of the surface, in new-born children, I am disposed to infer, not from the preceding instance alone, but from the observations of several continental writers on the subject, and from the acknowledged pernicious effects of purulent matter when secreted within the veins of the adult.

"Professor Osiander found the lungs inflamed, and the umbilical vein, from the navel to the liver, filled with a yellow fluid, in a child who died of erysipelas a short period after birth. In the body of a child, seven days old, examined by Meckel, the umbilical vein was found inflamed, and its inner membrane covered with a layer of pus, and perforated with small ulcerations. In another child, attacked soon after birth with vomiting, colic, diarrhœa, jaundice, and fever, he found the peritoneum inflamed, and a puriform effusion in the abdominal cavity. The branches of the vena portæ, and those of the umbilical vein, were swollen, and their coats much thickened.

"M. Breschet has repeatedly observed this inflammation of the umbilical vein and its branches in the bodies of children who had died a few days subsequent to birth; and he is disposed to consider this phlebitis as the sole cause of death in many of these cases."—*Lond. Med. and Phys. Journ. May*, 1829.

—

17. *Perforation of the Stomach, with Peritoneal Inflammation, where no symptoms indicative of previous Disease existed.* By John Abercrombie, M. D.—A strong and healthy-looking servant girl, aged about twenty-one, while engaged at her work between seven and eight o'clock in the morning of one of the last days of September, 1827, was suddenly seized with excruciating pain in the belly, sickness, and vomiting. About ten, she was bled ad deliquium, and twice afterwards in the course of the day. The bowels were freely moved by an enema, and she took purgative medicine which did not operate; but there was no alleviation of the symptoms. The belly became tense, tender, and tympanitic, the pulse feeble and rapid; every thing she took was vomited, and she died in eighteen hours from the attack.

Inspection.—The peritoneal cavity was distended with air, and also contained a considerable quantity of fluid, which had the appearance of the liquids she had swallowed. There was extensive peritoneal inflammation, with a coating on the bowels of puriform matter. In the middle of the smaller curvature of the stomach, there was a round opening of about one-third of an inch in diameter. At the part where it was situated, the coats of the stomach were in some places nearly half an inch in thickness, and the thickening extended in a greater or less degree over a portion five or six inches in extent. The inner surface,

at the place of the rupture, presented a deep excavation with rounded and smooth edges, like a deep corroding ulcer which had cicatrized. It was fully half an inch in diameter, and a third of an inch or more in depth, having penetrated the thickened substance until it was bounded merely by the peritoneal covering; and it was this which had given way in the fatal attack.—*Pathological and Practical Researches, &c.*

—

18. *Ulcer of the Stomach Fatal by Hæmorrhage.* By JOHN ABERCROMBIE, M. D.—A gentleman aged about forty, had been long dyspeptic, and liable to pain in his stomach, which had not assumed any fixed or regular character; but he required great care in respect of his diet, and many articles were apt to disagree with him. He was otherwise in good health, and applying himself actively to business till Saturday, 5th November, 1825, when he was suddenly seized in his counting-house with a feeling of extreme faintness. He was assisted with difficulty to his dwelling-house, which was in the neigbourhood, and soon after vomited a large quantity of black fluid resembling ink. On Sunday he continued very sick and faint, and vomited occasionally the same kind of fluid, and he had discharges of similar matter from the bowels. On Monday he was better and walked out, but had some vomiting in the afternoon. On Tuesday he still felt very unwell, but without any marked symptom. On Wednesday he was seized with pain in the stomach, followed by vomiting of pure blood to the amount of several pounds. This was followed by extreme faintness and coldness, and the vomiting of blood returned in the afternoon. Dr. Abercrombie now saw him for the first time along with Dr. Hamilton, and found him extremely pale and exhausted, his skin cold, and his pulse very feeble. He complained of nothing but great faintness; but every attempt to rally him proved ineffectual, and he died in the night, having been again seized some time before his death with violent pain in the stomach.

Inspection.—The stomach was of immense size, but showed no appearance of disease in its structure, except at a part in the small arch about half way between the cardia and pylorus. Here a round defined portion, about the size of a half-crown piece was much indurated and about half an inch in thickness. On the inner surface of this portion, there was a small defined ulcer about half an inch in diameter, and more than a quarter of an inch in depth, and the bottom of it was occupied by a firm fungus mass of a dark brown colour. No other disease could be detected in any organ.—*Ibid.*

—

19. *Ulceration of the Stomach fatal by Perforation.*—A young woman, aged eighteen, had been affected for about six months with variable appetite, and occasional pain in the stomach, which made her frequently sit with her body bent forward, and her hand pressed upon the epigastric region. Little notice was taken of the attacks, as she was going about, and otherwise in good health; and for some weeks previous to the attack now to be described, her appetite had greatly improved. On the 26th November, 1824, while in a room by herself late in the evening, she was heard to scream violently; and when a person went into the room, she was found unable to express her feelings, except by violently pressing her hand against the pit of the stomach. When she was soon after seen by Mr. M'Culloch, she was moaning as if in extreme agony, but was unable to speak; the pulse was 86 and very weak; she could scarcely swallow; but soon after vomited the contents of the stomach, which seemed to be merely food she had recently taken. Various remedies were employed without relief. She continued with every appearance of extreme suffering, and unable to speak, till seven o'clock in the morning of the 27th, when she said the pain was considerably easier, but was still very severe in the pit of the stomach, and was extending downwards over the abdomen. The abdomen was now becoming distended, and when Dr. Abercrombie saw her about three o'clock in the afternoon, it was distended to the greatest degree and very tense. The pulse was extremely feeble; she was scarcely able to speak, but her countenance was ex-

pressive of extreme suffering. Nothing afforded the smallest relief, and she died about two in the morning, twenty-nine hours from the attack.

Inspection.—The cavity of the peritoneum was distended with air, and likewise contained upwards of eight pounds of fluid of a whitish colour, and fetid smell. There was slight but extensive inflammatory depositions on the surface of the intestines, producing adhesions to each other, and to the parietes of the abdomen. On the upper part of the small curvature of the stomach near the cardia, there was a small perforation of a size which admitted the point of the little finger. Internally this opening communicated with an ulcerated space on the mucous membrane, about the size of a shilling, with slightly thickened and hardened edges, and a considerable perpendicular loss of substance. The stomach in all other respects was particularly healthy.—*Ibid.*

—

20. *Perforating Ulcer of the Stomach, and communication with the Arch of the Colon.*—This interesting case occurred in a gentleman, aged fifty-six, who had previously enjoyed good health, except occasional dyspeptic complaints; began to feel languid, with impaired appetite, some loss of flesh, and occasional pain in the abdomen; but he was able to go about and attend to all his engagements, which were extensive and fatiguing. These symptoms had continued two or three weeks, when one day, while walking in the street, he was seized with vomiting, and the matter vomited had the odour and appearance of fæces. He felt no farther inconvenience till about a week after, when he was seized in the same manner. After this the vomiting returned at various intervals, sometimes three or four times a-day; and sometimes he was free from it for a week at a time. The matter vomited always consisted of pure fæces, sometimes so consistent that it was brought up with difficulty, until he diluted it by swallowing hot water. During the whole course of the affection, the bowels continued regular or easily regulated; the fæces varied considerably in their appearance; but that which was vomited always resembled what was passed from the bowels so closely that it was impossible to distinguish them. He never was observed to vomit food or other matters which had been taken into the stomach. His appetite continued good, and no disease could be detected by examination. He lived in this state three months, and died gradually exhausted, without any particular change in the symptoms, except that a week before his death he vomited a considerable quantity of blood. There was occasional pain in the abdomen, but not distinctly referred to any particular part.

Inspection.—The stomach was found contracted, and adhering to the parietes of the abdomen on the left side, and to the arch of the colon. At the place of the adhesion, a soft tubercular mass was formed, which seemed in general to be about two inches in thickness. The stomach appeared externally healthy; internally it showed a mass of ulceration which occupied the whole of its great curvature, and covered about one-half of the inner surface of the stomach. The pylorus and whole pyloric extremity were healthy. In the centre of the ulcerated part there was a ragged irregular opening, fully two inches in diameter, which made a free communication with the arch of the colon; and, around the opening, there was also some ulceration of the mucous membrane of the colon. The intestines in all other respects were healthy. The small intestines were empty; the caput coli was distended with feculent matter, and the colon throughout contained healthy well-formed fæces.—*Ibid.*

—

21. *Involuntary Periodical Drunkenness.*—M. P. who acquired, some years back, a merited reputation among the bookbinders of Paris, left that city, after many domestic troubles, which determined, it would appear, the complaint in question. He went to live at Valence, where he married anew, and continued his business with equal success, during his lucid intervals. About fifteen years ago he was driven, by a sort of internal movement, to drink wine without attention and without satiety. Before this period his life had been a model of virtue and sobriety. The unfortunate inclination just mentioned ceased, but,

since that period, he has been regularly subjected to a return of it every two or three months, and it continues about the same length of time as it did the first time. No symptoms denote the approach of the access. He never speaks of his pathological state, of which he appears insensible. The following has been his regular course of living, observed during the space of nearly two years:—When the periodical malady is coming on, M. P. naturally of a lively disposition, rises about five or six o'clock in the morning; he takes some money out of the till, and hastens into a tavern, where he drinks, without ceasing, until ten or eleven. He then returns home, tottering, seldom falling down, descends into the cellar, takes up a great number of bottles of wine, places them on the kitchen table, sits down by them, and drinks night and day. If by chance he goes to bed, he gets up, even in the dark, to go in search of wine. During the paroxysm, he never shows the least appetite, and he does not consume two ounces of food during the whole course of the access. The urine is copious, high-coloured, and sometimes depositing a lateritious sediment. During the first and second periods, he very often goes, both in the morning and afternoon, to a tavern; then he is subject to many fantasies, more or less puerile, which can only be satisfied at great expense. When the paroxysm draws towards its end, that is, fifteen or twenty days before the term of its ordinary duration, the patient no longer goes from home. He becomes reserved, passionate, and behaves spitefully to his wife. His state totally changes; he flies from the light, hides himself in the most obscure corner of the kitchen, where he always shuts himself, constantly muttering, but drinking rather less than before; and, as if ashamed of his condition, he desires to be alone. During the access, on the contrary, although tottering, and half asleep, the brain exercises its ordinary functions. He readily follows the course of conversation. During the paroxysm he entirely neglects his occupations. The invasion of the affection is sudden; its termination is also similar. It commences in the morning, and ends the same after a profound sleep. At this period the patient goes to bed towards midnight, sleeps almost naked, rises at the expiration of some hours, and resumes his occupations, as if he had quitted them the evening before, without any reference to his previous state, of which no signs remain, but a great lassitude, of the origin of which he is ignorant, and the ordinary taste of drunkards. His physiognomy changes, as does also his breath; the mussitation and continual salivation diminish; his walk becomes steady; he loses that state of approaching paralysis with which he was before affected; his speech becomes more free; his tongue insensibly loses the indications of stupor which affected it during the paroxysms; he is pale, wan, and debilitated; and all his traits are indicative of a remarkable laxity. M. P. is about sixty years of age; his present habits have greatly altered his faculties, both physical and moral; notwithstanding his age, he is of a very lymphatic temperament, and of a constitution eminently nervous and lank, though strong. The most eminent medical men of the capital, and of the neighbourhood of Valence have been consulted respecting his case; but their prescriptions have been of no avail.—*Journal des Progrès, Vol. XI.*

—

22. *Case of extraordinary Universal Emphysema.* By Dr. Jahn.—"A prisoner in a workhouse at Meiningen, who had been for same time affected with dropsy in consequence of long intemperance and the meager diet allowed by the establishment, received from one of the overseers a chastisement, which next day left no other mark except an ecchymosed spot in the left lumbar region. On the second day the neck, face, and breast began to swell; and from the crepitation felt on pressure, it was evident that the swelling arose from the effusion of air throughout the cellular tissue. He made no complaint, however, and in particular his breathing was as free as usual. In the course of the subsequent night the swelling rapidly extended also over the whole head, trunk, and extremities; at the same time he was seized with great anxiety, severe cough, and a sensation as if the lungs were gradually pressed more and more upwards; and towards

morning the sense of impending suffocation became so dreadful that he entreated his attendant to give him his shoemaker's knife in order to make incisions in the skin to let out the air. In the morning, when the relater, Dr. Jahn, saw him, his state was so frightful that it appeared as if a further delay of fifteen minutes would have been enough to put an end to his sufferings. He sat upright in bed supported by the attendants. The head, trunk, and extremities were at least one-half thicker than natural. The upper eyelids projected like two bladders of the size of apples, and the eye-balls were emphysematous, and projected from the sockets; the organs within the mouth were also puffed up with air; the scrotum was as big as a hat, and the penis as thick as a stalion's. A peculiar oily sweat covered the whole integuments, which sounded when struck like a wet drum, and crackled when handled. The dyspnœa was most urgent, the respiration being exceedingly frequent, hurried, hissing, and accomplished with the neck projected like that of a horse at speed, and the hands grasping the chair convulsively. There was likewise froth round the mouth, a frequent suppressed cough, incapability of speaking, but perfect sensibility.

"A trocar was immediately thrust into the scrotum, from which an inodorous air rushed out with great force and a hissing noise, and to the patient's instant relief. The swelling rapidly subsided every where, the breathing became much easier and deeper, the patient was able to speak again and joked about his blown-up appearance. His account of his previous sufferings was that he felt the lungs gradually pressed more and more upwards, and more and more closely, then a sense of tightness in the region of the glottis and throat, and at length a feeling as if he was choaked from within outwards. As the aperture in the scrotum was insufficient for the discharge of the whole air, other perforations were made on the extremities, back, and breast. Still the air evidently continued to be pressed into the sub-cutaneous cellular tissue, and it was prevented from accumulating only by the new incisions. As soon as the patient's state of amendment would allow an examination, the chest was carefully explored, but the most diligent search could not detect any fracture, splinter, depression or curvature of any rib, or laceration of a muscle; neither did he feel the slightest pain or uneasiness internally, except tightness in the chest, which was greatly diminished.

"The antiphlogistic regimen was strictly enjoined. Next morning he was very comfortable, and his state rapidly improved. For ten days the air continued to collect a little towards night; but it was always easily removed by friction and pressure. On the twelfth day the legs were somewhat œdematous; but the œdema was soon removed by appropriate remedies. It is evident that the emphysema in this case arose from a laceration of the lungs and costal pleura."—*Ed. Med. and Surg. Journ. April*, 1829, *from the Magazin für die gesammte Heilkunde*, 1828.

—

23. *Case of Coma which lasted Fifteen Months.*—This extraordinary case is related by Dr. Bischoff, of Vienna, in a work recently published. It occurred in a quarter-master, at the garrison of Komorn in Hungary, æt. 42, who had enjoyed excellent health until June 6th, 1823, when he became extremely agitated, in consequence of a severe reprimand he received, and suddenly fell down, and remained in a state of complete catalepsy. This continued for several days, when he had a violent fit of epilepsy, which returned about every third day, but became gradually milder, and after three months entirely ceased. From this time he fell into a state of coma, in which he continued for fifteen months, without exhibiting any sign of muscular motion; the eyes, which had been at the commencement of this affection open, were subsequently closed, and remained so; respiration, circulation, excretion of urine and fæces, and cutaneous transpiration, were carried on uninterrupted, but with less energy than natural. The patient was nourished by liquid food: to introduce this into the mouth, the jaws being firmly closed, a tooth was broken out. Deglutition was regular, though extremely slow. All solid food was almost instantly rejected

by coughing. The treatment consisted in the use of stimulants, which produced no effect, and the patient, having continued in this lethargic state for fifteen months, was removed to Vienna. At this period, December 1st, he is represented to have been in the following state:—"Middle stature, fair complexion, and considerably wasted; the countenance was pallid, collapsed, and expressive of pain; the jaws were firmly pressed together, and the eyes were constantly closed; but when either of them was opened, the other opened also spontaneously; the temperature of the body was natural; the skin soft, flaccid, and slightly transpiring; the functions of the nervous system, and the mental powers, seemed to be quite extinct, and not the least trace of consciousness or will could be discovered; the external senses exhibited a complete torpidity towards stimuli, even of the strongest kind; intense light produced a very slight contraction of the pupil, but appeared to have no effect on the optic nerve; the strongest noise made no impression on the ear; caustic ammonia, when applied to the mucous lining of the nose, and the most intense irritation of the skin, had also no influence. All the voluntary muscles were perfectly motionless; the limbs remained in any position in which they were placed, with the exception of the left leg, which was spasmodically contracted. The organic functions were regularly, though very slowly, performed; respiration was carried on by the abdominal muscles; the pulse was between 84 and 90, small, contracted, and rather hard. The quantity of the excretions corresponded with that of the food which the patient took; the urine was scanty, and high-coloured; the bowels were very torpid, and required the use of irritating injections."

He was here treated by the daily use of the warm-bath, in which was dissolved two ounces of caustic potash, and the quantity gradually increased, repeated sinapisms to the spine, &c. without any apparent impression. Strong sternutatory powders were introduced into the nose, without any effect, and two moxas over the region of the atlas, and afterwards the actual cautery over the tuber occipitale, without producing any sign of pain or voluntary movement. These severe remedies were persevered in, and the patient gradually recovered his health. Speech, however, remained for a long time incoherent, and the organs of the senses appeared to require a considerable period before they became accustomed to external stimuli; at first even a slight sound produced a violent tingling in the ears, and daylight was intolerable to the eyes. By degrees he recovered the memory of his former life; but of what happened during his disease, he had only a very few obscure images, as of a confused dream. By May his health was restored, and continued good until January, 1827, when he was attacked with pneumonia, in consequence of exposure, which terminated in phthisis, of which he died, on the 16th of May.

Post mortem examination.—Brain healthy; pons varolii and origin of the nerves much injected; the sympathetic nerve, especially at its first thoracic ganglion, of a very white colour, and unusually large; the dura mater of the spinal column considerably injected at its cervical portion. In the lumbar vertebræ, two ounces of blood were extravasated between it and the spinal chord; the cauda equina was surrounded by an albuminous effusion; the spinal arachnoid gorged with blood; the chord itself healthy. The lungs contained very large ulcerous cavities; the heart and large vessels, as well as the abdominal viscera, were healthy; the spleen only was of greater size than usual, and the solar ganglion, with the nerves originating from it, appeared to be considerably enlarged.

—

24. *Rupture of the Heart.*—A female aged fifty-eight, who appeared to be in good health, suddenly screamed out and instantly expired. On examination, the heart was found pale and flabby, and about an inch above its apex, on the left margin exhibited a longitudinal rupture, leading into the left ventricle, six lines in length, and half a line in breadth; its edges were irregular and lacerated. About three lines distant from the former there was another longitudinal rupture, which was, however, still covered by the pericardial lining of the heart.

The left ventricle was considerably enlarged; its external and internal linings were healthy; but its muscular tissue, especially round the fissures, without any appearance of fibres, and had degenerated into a soft, yellowish-white pulp. The right ventricle, as well as the large vessels was perfectly healthy.

Dr. BIGNARDI, of Modena, who relates the preceding case, also mentions another of a young lady, apparently in good health, who died suddenly. On examination, the cause of death was found to be rupture of a small aneurismatic tumour at the origin of the aorta. The parietes of this tumour consisted only of the internal and external lining of the heart; the muscular tissue around it was softened.—*Annal. Univers. di Med. Jan.* 1829.

—

25. *Disease of the Heart.*—A woman upwards of eighty years of age, who had been affected for many years with disease of the heart, was admitted into the Hospice de la Salpêtrière. She complained of difficulty of breathing and palpitations; and died in a few days after her admission. "On examination, the heart was found considerably increased in size; it was covered externally by a false membrane, which completely enveloped it, and which extended in the form of a sheath over the roots of the aorta and pulmonary artery. Thicker towards the apex of the heart than at its base, this membrane, of a reddish aspect, appeared exactly, both in consistence and colour, like a coagulum of blood, differing, however, from blood by its membranous form and well-marked vascular aspect. It had contracted no firm adhesion to the heart, from which it was easily detached, and it was separated from the pericardiac covering of the organ by a considerable quantity of fluid blood. The pericardium presented no trace of inflammation. This membrane having been removed with precaution, the heart exhibited, in the middle of the anterior surface of the left ventricle, a small fissure, and several dark-coloured spots. A probe introduced into this opening, and left to its own weight, penetrated very easily into the cavity of the ventricle, under one of the carneæ columnæ. The internal parts surrounding this aperture did not appear diseased. The spots, or ecchymoses, already mentioned, were visible on the external surface only of the heart. Each dark-coloured point which formed them, was the termination of a small canal filled with coagulated blood. These canals joined in some points, but in others they were entirely isolated, and had then less the form of a canal than that of a cavern, or of a rupture similar to that observed in the brain of persons who die from recent hæmorrhage of that organ. Besides these alterations, the heart presented a hypertrophy, with a dilatation of the left ventricle, without ramollissement of the parietes; an ossification, and, consequently, a considerable contraction of the aortic orifice. The aorta was dilated as high as its arch, but recovered its ordinary size below that part. It contained ossifications at many points of its course. The orifices of the subclavian and carotid arteries were reduced in size by several points of ossification which surrounded them." —*Lond. Med. and Surg. Journ. April,* 1829, *from La Lancette Française.*

—

26. *Satyriasis.*—M. CHAUFFARD has given an account in the *Journal Universel,* for December last, of a case of satyriasis and indomitable salacity, in a man aged fifty-three years, produced by a blow on the inferior part of the occipital region. Erotic delirium, with the most libidinous acts and conversation, continued for three months. This state was followed by convulsions, afterwards paralysis of the left side, and death.

—

27. *Hernia of the Lungs from Tight Stays.*—A girl, aged sixteen years, applied to M. BRESCHET, at the Hôtel Dieu, with a tumour of variable size, when largest as big as the fist, which occupied the right side of the neck, extending from the clavicle, behind which it arose as high as the thyroid cartilage. There was every reason to believe that this tumour was formed by the upper part of the lungs forced out of the cavity of the chest by tight lacing, which prevented the lungs from dilating, except at the upper part.—*La Clinique.*

28. *Cynanche Tonsillaris.*—Dr. Watson relates in the *Medical Gazette*, for January last, an interesting case of this disease, which terminated fatally by hæmorrhage. On examination after death, it was found that an abscess had existed, which extended along the left side of the larynx, leaving the os hyoides rough and bare, and opened internally behind and below the left tonsil, and nearly opposite to the epiglottis. The lingual branch of the carotid was traced to the situation of the abscess, where it terminated by an open mouth; the fatal hæmorrhage had of course taken place from this vessel, which being involved in the abscess had been divided by ulceration. In such a case the only chance of relief would appear to be the placing a ligature upon the carotid artery.

MATERIA MEDICA.

29. *Mode of Exhibition of Copaiba.*—The following formula is recommended in the *London Medical and Surgical Journal*, for January last:—℞. bals. copaibæ. f℥ij.; pulv. acaciæ, ℥ij.; sacchari, ℥iij.; liq. potassæ, f℥iss.; spir. myristicæ, f℥j.; aquæ, f℥vj.; ft. mist. Dose two table-spoonsful three times a day. The efficacy of the copaiba is said to be much increased by the combination. It is apt, however, to leave a caustic taste, the mouth and fauces should therefore be washed after taking it.

—

30. *Anti-asthmatic Effects of the Tincture of Lobelia inflata.*—Mr. W. B. Andrews states, in a communication to the editor of the *London Medical Gazette*, that he has been for upwards of two years afflicted with an inveterate asthma, which deprived him of rest, and the spasmodic effects of which were frequent and most distressing. When he found these paroxysms coming on, he now takes fifteen drops of the tincture of the *Lobelia inflata*, which invariably gives him immediate relief, although previously to his using it, the violent coughing fits often lasted from one to two hours.

—

31. *New Mode of using Iodine.* By M. Pelletan.—This method, the object of which is to prevent the iodine from irritating the stomach, consists in the combination of this substance with morphium. M. Pelletan represents that he has used the following mixture in a case of considerable and obstinate engorgement of the left breast:—℞. axungia, ℥j.; proto-ioduret of mercury, gr. vj.; acetate of morphium, gr. viij.—*Nouvelle Bibliothèque Médicale, Feb.* 1829.

—

32. *Rhubarb Plant.*—"The plant that yields the fine rhubarb of commerce, having been long involved in obscurity, is now discovered to be the *Rheum australe;* it flowered in June last, in the collection of A. B. Lambert, Esq., at Boyton House, Wilts. The stem of the cultivated plant is from seven to ten feet high; the leaves are cordate, ample, numerous, and of a grass green colour; the flowers are smaller than in any of its congeries, and of a dark, or blood red colour; the seeds are dark red, with a highly polished surface; when bruised, they emit a powerful odour of rhubarb. It is perfectly hardy, and ripens its seed readily in this climate.

"Dr. Wallich, of the Calcutta Botanic Garden, sent over some dried specimens of the true rhubarb plant, and some seeds, from which Mr. Lambert raised a number of plants. We were informed by Mr. Anderson, of the Apothecaries Garden, at Chelsea, that he had proved the stalks of this species to be powerfully purgative, when employed in the same manner as those of the *Rheum undulatum*, in pies.

"It seems probable, that in a rich, loamy soil, we shall be able to cultivate this valuable article of the materia medica advantageously. For a fuller account, and a coloured figure of the plant, see *Sweet's British Flower Garden*, October, 1828."—*Lond. Med. and Surg. Journ. Jan.* 1829.

PRACTICE OF MEDICINE.

33. *Case of Pneumathorax in which an operation was unsuccessfully performed.* By JAMES JOHNSON, M. D.—Mr. Cornish, a surgeon, aged twenty-eight, of a scrofulous diathesis, was attacked in the latter end of November with thoracic inflammation, which he neglected. When seen by Dr. Johnson on the 20th of December, he was lying on a sofa on his right side, breathing with considerable difficulty, and frequently coughing; pain in the centre of the chest; can only lie on the right side; expectoration scanty and extremely tenaceous, but without purulency; pulse 130, sharp, wiry; skin not very hot nor dry; tongue moist; thirst moderate; right cheek flushed; urine high coloured and scanty. "On uncovering the thorax, the muscles of respiration were seen in violent action, but the breathing was principally carried on by the diaphragm. There was no perceptible difference in the size of the two sides of the chest, but a very remarkable difference in the sound emitted on percussion: the *left* side sounded louder than natural, the right sounded considerably duller than natural. On applying the ear to the *left* side, which sounded so well, little or no respiration could be heard; on listening to the *right* side, which sounded so dull, the respiration was very loud, and accompanied with much wheezing. The heart was felt beating rather to the *right* of the middle of the sternum, and no trace of it could be felt in the *left* side." Blood was taken away generally and locally, and digitalis, colchicum, and antimony were also given in powerful doses, with a view of making an impression on the circulation. But little relief was afforded by the bleeding; the blood was remarkably buffed and cupped. Dec. 21st. Left side sonorous back almost to the spine; respiration more indistinct than before; pulsation of the heart rather farther to the right; right side very dull on percussion, and the respiration very noisy and confused; metallic tinkling distinctly audible in the left side of the thorax, not only when the patient coughed or spoke, but even during every inspiration and expiration; leaving no doubt of the existence of pneumathorax. The next five or six days were consumed in the attempt to relieve the thoracic inflammation, and to promote a free expectoration, but with little advantage. On the night of the 29th of December, the patient nearly expired from suffocation, and on the next morning Dr. Johnson explained to the patient the nature of his case, namely, "that there was an aperture in the left lung, through which air was extravasated into the left pleural cavity, which cavity also contained some fluid, the precise nature of which could not be ascertained. It was stated to Mr. Cornish that the increasing collection of air was pressing severely on the right lung, that it had already pushed the heart into the right side of the chest, and that he saw no prospect of relief but from an operation."

In consultation with Mr. Lawrence and several medical men in the afternoon, December 30th, it was thought that the patient was so near death as to render the operation hazardous, if not unavailing, as it was believed that he would expire during the operation. At ten o'clock at night, however, at the earnest request of the patient and his friends, the operation of paracentesis thoracis was resolved upon as the only measure that offered even temporary relief from the dreadful state of suffocation to which the unfortunate patient was reduced. Mr. Guthrie accordingly made an incision in the anterior and lateral part of the left side of the chest, between the sixth and seventh ribs, and cautiously opened the pleura with the scalpel. Instantly, air rushed forth with a loud hissing noise. The relief was almost instantaneous. The patient turned upon his back, and breathed with comparative freedom. He was turned on his left side, but no fluid came from the wound. A piece of linen was placed over the orifice. The relief continued for some hours, and then the difficulty of breathing returned to a certain extent.

Dec. 31st. Dyspnœa considerable; left side nearly as sonorous as ever; metallic tinkling perfectly audible; wound closed. A director was introduced into

the wound, and air instantly rushed out of the chest, with immediate relief, as in the first operation. A probe-pointed bistoury was passed in, and the opening in the pleura enlarged to half an inch. The pulse had fallen to 120; countenance good; skin moist; expectoration more copious, and muco-purulent. On examination of the chest after the escape of the air, no metallic tinkling could be heard. The patient took nourishment. In the evening not so well, a probe was again introduced, when air escaped with some noise. Twenty drops of laudanum were given in a saline draught.

January 1st, 1829. The patient had enjoyed several hours of tranquil sleep, the first during some weeks; breathing easier; expectoration more copious and inclining to purulency; pulse less frequent and more expanded; appetite good. He got out of bed this day without assistance, went to the commode, and had a natural motion. A cannula was introduced into the wound, and a taper held near it. "During inspiration the cannula was closed with the finger, so that no air could enter the chest; and during expiration, the finger was removed from the cannula, when a rush of air always escaped. This was continued until no doubt could remain as to the fact that part of the air drawn in by the mouth was thrown out of the wound at each expiration. This phenomenon, and especially the large quantity of air thus thrown out, proved that a considerable aperture of communication existed between the bronchia and the cavity of the pleura—a circumstance which greatly lessened the hopes of recovery. It was found that since the operation the apex of the heart beat about an inch and a half, or two inches, nearer the central line of the thorax than before. The pulsation was still, however, to the right of the line." The patient continued comfortable through the day, but at night he became greatly oppressed. The cannula was re-introduced, and with some relief.

January 2d. It was evident that the patient was sinking; he had a strong convulsion early in the day, and about one o'clock expired.

Autopsy.—Previous to the examination, Dr. Johnson, at the request of one of the medical gentlemen who were present, stated the disease to be pneumathorax, and the following to be the morbid appearances which he expected to find, namely, "a collection of air and some other fluid in the left side of the chest; collapse of the corresponding lung; aperture in the lung capable of giving free vent to air from the lung to the cavity of the pleura; displacement of the heart; probably tubercles in the right lung." On raising the sternum, the heart was found rather to the right of the median line of the chest. The left lung was collapsed to one-fifth of its natural dimensions. "The vacant space was filled with air, and about fourteen ounces of turbid serous fluid. The pleura costalis and pulmonalis presented marks of inflammation of a few weeks' standing—viz. some thin false membranes, that were easily separated by scraping with the scalpel. There were no marks of any more recent pleuritis, even in the vicinity of the wound, there being only a slight ecchymosis between the pleura and subjacent cellular tissue, for the space of a few lines around the incision. A tube was inserted into the trachea, and air blown into the lungs. The left lung expanded to a certain extent, and air was heard to bubble out. The lung was then carefully removed, and an aperture was immediately recognized at the division or cleft between the two lobes." This aperture was circular, capable of admitting a crow quill, and was evidently fistulous, and of several weeks' standing. It communicated with a very small excavation formed by the softening down of some tuberculous masses, and into this small excavation a bronchial tube was seen to enter. The left lung presented some trifling tuberculation, but was not materially diseased. The right lung was much more tuberculated; but the tubercles were principally in a quiescent state. There was no other disease in the chest.

Thus was Dr. Johnson's diagnosis amply verified, and another fact added to the multitude already existing of the value and accuracy of auscultation and percussion, as diagnostic means. Dr. Johnson thinks that had the operation been performed when the pneumathorax was first ascertained, "and when the

difficulty of breathing was urgent—and had the aperture in the lung healed, as it probably would have done, his life might possibly have been saved."—*London Medical Gazette, January*, 1829.

—

34. *Case of Pneumathorax in which an Operation was successfully performed.* By JOHN DAVY, M. D.—In connection with the preceding case, it may be interesting to introduce a notice of one related by Dr. Davy, in the *Philosophical Transactions*, for 1823, in which the operation was successful. A soldier was sent home invalided from the West Indies, for hæmoptysis, *which had succeeded a severe fall on the left side of the chest, received eighteen months previously.* He was admitted into the Military Hospital of Chatham on the 9th of May, 1823. On the morning of the 13th, after a violent fit of coughing, symptoms of pneumathorax came on suddenly, and continued increasing till the 21st. "The most prominent of these symptoms were, a feeling of extreme tightness about the chest and abdomen; rapid and difficult inspirations, between thirty and forty in a minute; great anxiety of countenance and agitation of mind, accompanied by a small pulse of 130; cold sweats, frequently breaking out on the neck and face; considerable prostration of strength. On examining the chest, *the left side was found more protuberant, and, in all its dimensions, larger than the right;* it was tense, and, on percussion, sounded remarkably hollow and tympanitic, giving the idea of its being distended with air. The heart was found beating under the right mamilla."

Under these circumstances it was resolved, on consultation, to tap the chest, which was accordingly done in the following manner:—A trochar was attached to an empty bladder, and the parietes of the chest punctured between the eighth and ninth ribs, the integuments and intercostal muscles being previously divided with a scalpel. A little air only rushed out, and as it was concluded, from the symptoms continuing, that its escape had been prevented by adhesions of the pleura at the point which had been perforated, the operation was repeated next day. The puncture was now made just below the left papilla, when, on withdrawing the stilet into the bladder, a large quantity of air rushed out and distended it. The bladder was now separated. Air continued to rush from the chest for several seconds, "as if from a blow-pipe." When this ceased, and when the air began to pass inwards during inspiration, the cannula was withdrawn, and the wound healed. The relief to the patient was sudden and great, and he continued to improve till the 17th of June, when the account closed. No farther history of the case appears to have been published. The heart was still felt beating on the right side, and "the fluctuation of a fluid was perceptible in the left."

—

35. *Case in which two ounces of Sulphuric Acid was Swallowed.* By J. ORR, Esq.—A female, aged nineteen, of delicate constitution, in a fit of temporary alienation of mind, arising from hysteric sensibility, swallowed, February 4th, at half past nine o'clock in the morning, two ounces of concentrated sulphuric acid. It produced agonizing pain, occasional hysterical fits, accompanied by spastic rigidity of the muscles of the lower jaw, complete loss of speech, great and sudden sinking of the animal powers, weak and fluttering pulse, with paleness and extreme dejection of countenance. About two ounces of a mixture of carbonate of magnesia was, in a short period after her swallowing the acid, passed down the throat, part of which, however, was ejected by vomiting. A state of almost entire insensibility, with coldness of the extremities, supervened. Mr. Embleton saw her in this condition, and bled her. When Mr. Orr first visited her, which was at seven o'clock in the evening, he found "her lying in a state of insensibility and collapse, from the bleeding, but on the whole apparently much relieved. On pressure in the region of the stomach, more particularly at its cardiac orifice, she evinced a slight sense of pain; and I suggested the immediate application of leeches to the epigastric region, to be followed by a large blister on the same part. A large quantity of castor oil and a copious

enema were administered, and a decoction of linseed given as common drink. During the night she remained in a quiet state, but unrefreshed by sleep; the breathing was occasionally hurried and stertorous; and on the morning of the 5th, her pulse becoming more rapid, with increased tenderness and pain in the epigastrium, about sixteen ounces of blood were drawn from the left arm, and the oil and enemas repeated. During the night she had six or seven very copious stools, of a perfectly black colour, and highly fœtid. She slept a considerable time, and soundly, during this day, but in the evening her pulse again rose to 140, was small and easily compressed, with increased tenderness and pain in the abdomen and throat, and slight pain at the 'basis cranii." Another blister was applied to the thorax, and the tartar emetic ointment ordered to be rubbed into the neck, which occasioned considerable irritation of the external parts, and afforded the most decided relief.

"On the 6th she swallowed some arrow-root without much difficulty, and the tongue, which had become tolerably clean during the previous day, seemed to have been but partially injured, retaining the sense of taste to a considerable extent; the fauces, from being swollen and inflamed, became less painful, and many words were very distinctly articulated, and in a firmer tone. She had slight cough and sputa, mixed with muco-purulent matter, apparently from the upper part of the trachea, muscular power in that region having almost ceased since she swallowed the acid. She had two or three dejections during this day, of varied colour, but latterly more natural, and containing a good deal of bile. Pulse 131, and more equal; tongue cleaner; pain of head gone; sits up in bed, and is cheerful, and swallows with less difficulty.

"Feb. 7th.—Passed a good night; pulse 98, and firm; less pain in swallowing; very slight tenderness in the abdomen; ate some more arrow-root, and continues to drink linseed decoction, with gum Arabic dissolved in it. Had several stools of a more natural colour, and speaks with regret of her forlorn condition."

Feb. 8th.—Convalescent, and afterwards continued to improve.—*London Medical Gazette, Jan.* 1829.

—

36. *On the Treatment of Intermittent Fevers by the Sulphate of Quinine, applied to a Denuded Surface of the Skin.* By Professor C. Speranza.—In a great number of cases it is impossible to administer certain remedies, either from the difficulty of swallowing or the vomiting they produce, the insurmountable disgust which they inspire, or the youth of the patient; and in some instances it is probable that the liquids of the stomach modify the remedies introduced into this organ. Under these circumstances, the employment of medicines by the endermique method offers a very valuable resource. Professor Speranza has employed in this manner the sulphate of quinine, in the treatment of a considerable number of cases of intermittent fever. He relates, among others, five cases of tertian fever, which yielded immediately to the application of the sulphate of quinine, applied upon a surface deprived of the epidermis by a vesicatory. In all the patients the fever had existed for many days, without manifest local alteration, except two, which presented gastric symptoms. Without premising purgatives, a blister was applied at once, and in most of the cases, even the day of the fever: the sulphate of quinine was applied at the end of the access, or the commencement of the apyrexia. The arm was chosen to apply the blister to, as the most convenient for dressing: the skin was rubbed well with strong vinegar, to hasten the formation of the bulla produced by the blister; immediately after the epidermis was removed eight or ten grains of the sulphate of quinine incorporated in a small quantity of pomatum was placed on the denuded surface. By employing this method, the fever has most frequently ceased after the first application, without its being necessary to make a second. Not only fevers whose primitive type were tertian, but those which had originally been continued and become intermittent, were treated in this way with success. In no case did a relapse take place, which is so common after the administra-

tion of quinine internally. In some subjects in whom symptoms of organic disease necessitated the use of evacuants or topical applications after the disappearance of the fever, this last did not reappear during the course of the secondary treatment. The application of the blister during the febrile paroxysm did not produce any disorder of the urinary organs or irritation of the neck of the bladder.—*Archives Générales de Médecine, from the Annali Universali di Med. Nov. Dec.* 1828.

—

37. *Remarkable Case of Abdominal Dropsy.*—Dr. Bardsley relates, in the *Edinburgh Medical and Surgical Journal*, for April last, a case of abdominal dropsy in which the patient was tapped fifty-three times in six years, and one thousand three hundred and ninety-four pints of fluid drawn off. This patient was a female, aged sixty, and was first seized with swelling of the abdomen, after being exposed to wet and cold on a journey. The belly rapidly increased in size, and at length it became necessary to evacuate it by tapping. Her general health was unimpaired; the appetite good; the bowels regular; the secretion of urine scanty; the thirst regular; no cough. The patient's death was caused by an attack of dysentery.

When the ordinary remedies in ascites have been fairly tried during a *moderate length* of time, and the accumulation of fluid increases rather than decreases under their use, Dr. Bardsley thinks that it is of the first importance to direct *immediate* tapping, as affording the only chance of cure; he says that he has had many opportunities of witnessing the bad effects of unnecessarily delaying this operation.

What is particularly worthy of notice in the preceding case is the impunity with which the operation was so repeatedly performed; and the evidence it affords of the enormous quantity of fluid that may be formed at successive intervals in the abdomen, without occasioning any material derangement of the general health, for the only inconvenience the patient suffered was from the weight she had to support previously to each operation.

—

38. *Ergot of Rye in Chronic Uterine Discharges.*—Dr. Marshall Hall is of opinion that the ergot possesses considerable powers in controlling chronic uterine discharges. In a very severe case of menorrhagia, alternating with leucorrhœa, of four years duration, the ergot was given in doses of five grains four times a day, beginning just before the expected appearance of the catamenia, with the effect of retarding the catamenia and suppressing the leucorrhœa. In several cases of leucorrhœa he has used the ergot with decided success. The effects of the remedy are usually perceived at the end of five days; it is recommended, however, to persevere in its use for a somewhat longer period.—*Lond. Med. and Phys. Journ. May*, 1829.

—

39. *On the Utility of Cold Affusion in Cases of Poisoning by Hydrocyanic acid.* By Dr. E. F. G. Herbst.—Dr. Herbst has published in *Meckel's Archiv. für Anatomie und Physiologie*, some interesting observations and experiments on the utility of the liquor ammoniæ and cold affusion in cases of poisoning by hydrocyanic acid. This preparation is the most violent of all known poisons. From experiments it appears to act principally upon the nerves; its first effect is excessive excitation of the nervous system, whose powers it speedily exhausts; followed by paralysis, muscular flaccidity, insensibility, &c. which are the forerunners of approaching death. The liquor ammoniæ diminishes the effects of this poison, especially when given immediately after the acid, or where a dose not sufficient to produce death has been taken. But should some time be allowed to elapse, or the quantity of the poison be sufficient to destroy life, the effect of the ammonia is less powerful and less certain, and for the most part unavailing. When hydrocyanic acid is given in doses which would if not counteracted prove fatal, cold affusion, only two or three times repeated, Dr. Herbst says, is sufficient to prevent its injurious effects. But, if the dose has been more con-

siderable, the affusion must be copious and frequent; yet its efficacy will chiefly depend on its prompt employment. Cold affusion can be especially relied upon when used immediately after the acid, or during the convulsive stage, even as long as the eyes are insensible and immoveably fixed, the extremities stiff and extended, and the head thrown back. To this state there succeeds general relaxation of the muscles, the respiration becoming gradually imperceptible, the pulse slow, weak, and scarcely to be felt, and in an instant afterwards death supervenes. Even at this period of paralysis, cold water recalls the vitality ready to vanish. The muscles again contract and become hard, the extremities rigid, and every thing successively resumes its natural state. The experiments of Dr. Herbst fully confirm these observations.

—

40. *Vapour of Iodine for the cure of Consumption.*—A letter from Dr. Berton has lately been read before the Royal Society of Medicine, respecting the employment of the above named medicinal agent in cases of tubercular consumption. This mode of using iodine appears to the author to have a double advantage—not producing gastric irritation, and being also immediately applied to the diseased part. He produces the vapour by the application of sulphuric acid to the hydriodate of potash. Air loaded with this vapour does not excite the least irritation in the throat. Dr. Berton cites three cases in which this method was productive of good effects: in two of them the cough and expectoration were diminished, and the appetite improved, in the third, although the plan had not been long adopted, the relief was evident. Dr. B. very justly observes that a greater number of facts are still required to enable us to pronounce an opinion as to the real value of this medicine.—*Journal Hebdomadaire.*

—

41. *Treatment of Burns by the Application of Flour.*—J. Marshall, Esq. Surgeon, recommends in a communication in the *London Medical and Physical Journal*, for April last, employment of flour as an application to burns. "This mild substance," he says, "is doubtless pre-eminent to all others hitherto in use, by imparting immediate ease to the inflamed and irritable surface; it rapidly heals by the scabbing process, in uniting with the discharge from the abraded cutis; and almost instantaneously forms a temporary semitransparent covering, thereby assisting the natural functions in restoring the epidermis. The advantage becomes evident by stopping a profuse discharge, and the tedious progress of ulceration. That remarkable substance, the animal gluten, peculiarly contained in wheat, seems in this instance to assist the rapid regeneration of the scarf-skin, and thus protects the cutis and rete mucosum. The surface of the body being wonderfully supplied by the extension of the cutaneous nerves in the form of a soft pulpy membrane, somewhat resembling the expansion of the optic nerve on the retina, readily affords, it is presumed, an explanation of the great violence offered to the system in all cases of extensive burn or scald.

"This topical remedy is equally suitable to either of these accidents, and perhaps eventually will be found useful in many other cutaneous affections. It has been recently tried by me in the case of an infant three months old, who laboured under an inflammation attended with ulceration, pouring forth an ichorous discharge: the parts affected were the lips and chin, the right groin, the scrotum, the inside of the right thigh and leg down to the toes. The result was most satisfactory: some parts healed in a few hours, and the whole surface in three or four days. The thickened state of the scrotum, although unavoidably exposed to the frequent irritation of urine, also yielded.

"When the flour has formed the artificial covering, the further application becomes comparatively superfluous; which is perceived by its rolling off."

—

42. *Observations on the Blood.*—The *Edinburgh Medical and Surgical Journal*, for April last, contains some interesting observations by Dr. Davy, on the question, "is the appearance of the blood, abstracted as a remedial means, a just

criterion in considering the propriety of repeating the operation of blood-letting?" He first considers the appearance and qualities of the blood, which are commonly supposed to be indicative of inflammation, and to warrant rather than forbid further blood-letting. They are chiefly the following:—An unusual degree of fluidity of the blood the instant it is drawn; unusual slowness in coagulating; and, when coagulated, being covered with a buffy coat, and cupped. Relative to these appearances and qualities of blood, experience seems to show that they are met with in the majority of cases of local inflammation, but with shades, differences, and exceptions, involving much difficulty and perplexity. 1. When the inflammation is violent, rapidly running on to suppuration, and very extensive, as attacking at the same time more than one texture, or only the same texture, but in different organs, the blood drawn is often neither cupped or buffed. This Dr. Davy has witnessed most strikingly in cases of peritoneal inflammation, either pure or complicated with inflammation of the mucous coat of the intestines, or with diffuse cellular inflammation. 2. In diffuse cellular inflammation he has often noticed that the blood coagulated as rapidly as when in health, and yet, being unusually liquid, exhibited a slight buffy coat, provided the vessel used for holding it was filled in a few seconds, and instantly put aside and allowed to remain undisturbed. 3. In ordinary cases of inflammation, as of the pleura and lungs, the blood drawn at the commencement of the disease is occasionally not buffed or cupped; but on repeating the operation the following day, the blood exhibits both these qualities. 4. In cases of inflammation of the mucous coat, whether of the air passages, or of the alimentary canal, the blood drawn sometimes shows the appearances and qualities enumerated, and sometimes not. 5. Experience does not seem to have established, even generally, any relation in point of degree between these appearances and qualities, and the intensity of the inflammation. Sometimes the buffy coat in the blood is very thick, and the crassamentum is much contracted, and the symptoms of inflammation are not violent, and the recovery is not long protracted; and sometimes the reverse of this occurs. 6. In a large proportion of fatal cases, fibrinous concretions, or polypi, as they were formerly called, corresponding to the buffy coat on blood drawn, are found in the heart and great vessels; and, as well as Dr. Davy can judge from his experience, as often when the lancet has been freely used, or only moderately, or not at all. The consideration of such facts deprives him of confidence in these appearances as indications for practice and the repetition of blood-letting, and induces him to conclude, that, as a criterion in this way, they cannot be pronounced just or safe. Dr. Davy next considers the appearances and qualities of the blood, commonly supposed to be connected with a state of the system, as it were the opposite of inflammation, and not to warrant farther blood-letting. They are chiefly, as it is supposed, a very soft crassamentum, very little, if at all, contracted, or the blood remaining liquid, or the proportion of crassamentum to the serum being unusually small. So far as he is able to judge, these appearances and qualities of the blood are not proved by experience to be connected with the state of the system supposed. 1. In the remittent fever of hot climates, and in cholera morbus, both the common kind and the epidemic, the crassamentum of the blood drawn is generally softer than natural, and little, if at all, contracted, and yet blood-letting in these diseases is not generally injurious: it is often beneficial, and even when repeated. 2. Blood without fibrin in any disease is very uncommon. Dr. Davy witnessed it only in cases of pulmonary apoplexy, and that after death, in the cavities of the heart and vessels, but so soon after death, that it may be taken for granted, that it was not a *post mortem* change; that it existed previously, and was probably connected with, and partly the cause of, the fatal effusion. In such cases no one would have hesitated, if called in time, in abstracting blood, especially taking into consideration the plethoric habits of the individuals to whose cases he alludes, and their previous apparent robust health. 3. The proportion of the crassamentum to the serum being small, may often be witnessed in acute diseases in their ad-

vanced stage, or in acute diseases supervening on chronic, of long duration, or occurring to persons of great delicacy of constitution, of feeble health, and of valetudinary habits. In such cases, no judicious practitioner would think of using the lancet, unless he considered it urgently necessary; and then surely he would not be prevented using it, even if certain of the blood being below par in respect to the proportion of crassamentum it might yield. Lastly, there is another and extensive and most important class of diseases, (were a classification formed according to the appearances and qualities of the blood,) in which the blood, as far as we have learnt from experience, is not apparently altered, as in the continued fever of summer, differing but little from the ephemera, as in the early stages of synochus; and, as in apoplexy and tetanus, and many of the diseases strictly belonging to the neuroses, in the treatment of which, blood-letting is often useful, and sometimes indispensable. These considerations tend to support the former conclusion.

—

43. *Chlorine in Hydrophobia.*—There was a slight error in the notice in our last number, of the employment of chlorine in hydrophobia, by Drs. Semmola and Schœnberg. They administer the solution in doses of from two drachms to one ounce, mixed with a sufficient quantity of sweetened water, three times a-day for *fifty* days. At a temperature of 60°, Fahrenheit, one part of water, in volume, dissolves two of chlorine.

—

44. *Angina Tonsillaris, Variolous Angina and Œdema of the Glottis, cured by Insufflation of finely powdered Alum.* By A. Laennec.—The *Revue Médicale* for October last, contains a very interesting clinical report by Dr. Laennec of the Hospital of Nantes. Three of the cases there related tend to confirm the advantages of the treatment of angina pellicularis, or those inflammations about the throat, in which coagulable lymph is poured out, by insufflation of finely powdered alum. Dr. L. states that he has used this remedy in pseudo-membranous angina, and also in simple angina tonsillaris, and that in this last it has subdued the tumefaction of the tonsils with great rapidity, and has the advantage of preventing the tendency to relapse, which he says is so common when the disease is treated by antiphlogistics alone. In the angina produced by the propagation of the variolous inflammation into the larynx and trachea, and which often proves fatal, he also particularly commends the alum sufflation. Since he has treated it by this remedy he has never lost a patient by suffocation, and has often even seen the consecutive effects of the variola become less violent as the angina ceased and the respiration become easier. Finally, he has had recourse to this remedy in a case of œdema of the glottis, and with complete success.

—

45. *Gonorrhœa.*—"A formula, different from any in common use, has been recently recommended in cases of gonorrhœa and gleet, after other remedies, even cubebs, have failed. It is this:—℞. Tinct. ferri muriatis, ʒj.; sp. æth. nitr. ʒvij. M. From forty to sixty drops to be taken three times a day, in distilled water. Copaiba may be substituted in the same quantity for the spirit. æther. nitr. should it be thought expedient to try that medicine.

"An exceedingly obstinate case of gleet is recorded in the eleventh volume of the *Edinburgh Medical Journal*, by Mr. Fletcher, which was cured by an injection of sea water. The patient had laboured under the complaint for two years. It was removed in ten days."—*Boston Journal.*

—

46. *On Small Doses of Oil of Turpentine for the cure of Sciatica and other Neuralgiæ.* By M. Martinet, M. D.—"The employment of terebinthinates, in affections of the nerves, is of very ancient date; but it is only in modern times that the essential oil of turpentine has been fairly put to the test of experiment in the neuralgiæ, of which sciatica is one of the most obstinate and intractable. M. Martinet has lately given an exposition of the results of his experience in seventy cases of Sciatica, or other severe neuralgiæ of the extremities, where

the oil of turpentine was employed, but in small doses—namely, about a fluid-drachm in the twenty-four hours, and taken at three different times. In this way, it seldom acted on the bowels; but generally produced a sense of heat in the stomach, and throughout the whole line of the intestinal canal, and occasional perspiration. A similar sensation was usually experienced in the nerve affected. The vehicle of exhibition was honey, syrup, or, what was the best of all, a mixture of syrup and calcined magnesia. The yolk of an egg is also a good ingredient in the vehicle. Where the digestive organs were very irritable, a few drops of laudanum were added. The modus agendi of turpentine in the cure of sciatica, or of any of the neuralgiæ, is quite unknown, and, therefore, we shall not waste time in discussing that point. The Resumee of our author's experience with this remedy is as follows:—

"Of seventy patients who laboured under sciatica, or other severe neuralgia of the extremities, fifty-eight were cured—namely, three by frictions, and fifty-five by the internal administration of the turpentine. Ten experienced only a more or less durable relief—and five derived no benefit whatever from the medicine. Two out of these last laboured under disease of the hip-joint, under which they ultimately sank. Of these seventy cases, forty were acute, and thirty chronic. Of the forty acute cases, thirty-four were cured—five were relieved—and one received no benefit. Of the thirty chronic cases, twenty-four were cured—two were relieved—and four remained without any mitigation of their complaints. Of the fifty-eight patients who were completely cured, thirty-four were cured in less than six days—twenty-two within twelve days—and three within six weeks. Of these fifty-eight cures, forty-eight were cases of sciatica, two of which were cured by frictions. Three were crural neuralgiæ—four were brachial—and three facial. In the ten cases which were only relieved, (all of which were cases of sciatica,) the treatment was suspended after the second day. In twenty-one cases, heat was felt along the tract of the nerve and in the limb affected; and nineteen of these were completely cured. In eighteen cases, heat was felt in the stomach and bowels. Three were affected with vomiting—but these had taken a larger dose than usual of the oil. Three had diarrhœa and colic. In five instances the urine was augmented—four had dysury or strangury. In ten instances the perspiration was augmented. In one case a degree of intoxication was produced—and in two others a pruritus was experienced over the body."—*Med. Chirurg. Rev. April*, 1829, *from the Revue Médicale.*

OPHTHALMOLOGY.

47. *Complete Inversion of the Eyelids.*—When the inversion of the eyelid is moderate, the excision of a portion of the external integument, or the application of the sulphuric acid, so as to produce ulceration of the skin of the palpebræ, which when it heals produces contraction and draws the margin of the eyelids outwards, generally affords relief. But in the more inveterate cases, it has usually been the practice to have recourse to the excision of the margin of the tarsal cartilage as recommended by Mr. Saunders. This operation, however, always produces more or less deformity; and although it removes the perpetual irritation caused by the cilia, is sometimes followed by a thickening of the conjunctiva which excites considerable irritation of the eye. It very often also produces a constant epiphora, and the delicate margins of the tarsi being removed, the functions of the lids are in a considerable degree destroyed, while the elliptical cartilaginous borders, which give that firmness, regularity, and graceful curve to the palpebræ, are mutilated and disfigured.

Some years ago, Mr. Crampton, of Dublin, proposed another operation, which has been since improved, and strongly recommended by Mr. Guthrie; and in the *London Medical Gazette*, for January last, Mr. Stratford relates three cases,

successfully treated by this method. That the reader may the more readily understand this operation, we shall select the most important details of one of these cases. A gentleman, when young, had been subject to frequent attacks of conjunctival inflammation. When seen by Mr. Stratford, he had complete inversion of both lower lids to such an extent, that not only the cilia, but even the skin of the lid was brought in apposition with the conjunctiva covering the globe. "The cilia were folded up, or bent in such a manner as to bring them in contact with the conjunctiva, where it forms the reflection from the ball to the lid, and consequently was in some degree removed from the corneal portion of the membrane. The whole lid appeared to be very considerably elongated, so that when the cilia were returned to their proper situation it formed several considerable folds, while an evident stricture was formed by the contraction of the tarsal cartilage, that made it difficult to retain the lid in its proper situation, especially if any involuntary contraction of the orbicular muscle was excited. The patient complained that the inversion of the cilia caused very considerable pain, prevented his application to study, and, indeed, made his life miserable."

An operation having been determined upon, it was commenced "by introducing one limb of a pair of scissors, (with a blunt point,) to the bottom of the fold formed by the reflection of the conjunctiva, as near the external angle of the lids as possible, and, holding them in a perfectly perpendicular direction, cut through the skin, tarsal cartilage, and membrana conjunctiva. This evidently afforded considerable latitude of motion to the lid, and being repeated at the inner angle of the inverted lid, (taking great care to avoid the punctum lachrymale and horizontal canal,) obviously freed the part from that constriction which was a chief cause of the complaint. The cilia now, in a very considerable degree, returned to their natural situation. I next seized a large fold of the skin of the lid, and cut off horizontally a considerable portion of it. This was included between the two previous perpendicular incisions: after the bleeding had ceased, I passed an armed needle through the tarsal cartilage in three situations; the two first close to the perpendicular incisions, the last in the centre between these. I then fixed the ligatures to the cheek by means of adhesive plasters, so as completely to evert the lid. A little lint, besmeared with simple ointment, and a compress and bandage were now applied, and the patient enjoined not to disturb the plasters, &c. Very little irritation was excited by the operation; the wound, was dressed daily, and the ligatures were firmly retained in their situation. About the fourth day, adhesion had evidently taken place between the cut surfaces of the horizontal wound, while the perpendicular incisions were granulating. The ligatures came away about the ninth day, when the everted lid soon returned to its natural situation, without the least inversion of the cilia. At first there appeared some disposition to permanent eversion of the lid, but this entirely subsided as the thickening of the cellular tissue of the lid was absorbed. The patient now freely expresses the very sensible relief which he experiences from the previous continual annoyance, which he purchased at the expense of a little pain, but certainly without any of the personal deformity which the excision of the tarsal margins must have produced."

—

48. *Cataract completely formed in a few hours.*—Dr. Wendelstrom relates in the *Årsberättelse om Svenska Läkare Sällskapets Arbeten*, for 1827, the case of a robust peasant, aged sixty, who enjoyed excellent health, suffering only occasionally from slight attacks of gout, eye sight very good, who while felling wood, experienced a dimness of sight, which gradually increased, and within a few hours terminated in complete blindness. He had not the slightest pain or external inflammation. He was seen by Dr. W. a few days after this occurrence, at which time both lens were opaque and were extracted.

—

49. *Ossification of the Vitreous Humour.*—Among the organs of sense, the eye alone presents examples of ossification. The choroid membrane is the part which

most frequently undergoes this change: in cataract the degree of induration is scarcely ever such as to warrant the appellation of bone. Haller asserts that he has seen the retina ossified, or at least an ossific lamina occupying the place of this membrane; and the same statement is made by Morgagni, Scarpa, Magendie, and Manoury.

No author, however, has recorded a genuine case of ossification of the vitreous humour. Lobstein, it is true, in his Pathological Anatomy, says, that ossifications of the hyaloid membrane are asserted to have occurred; but he cites no authority, and appears to doubt the fact. Scarpa says the hyaloid is occasionally opaque, and thicker than natural; and Morgagni speaks of it as sometimes cartilaginous. Beer mentions having found earthy matter in the interior of the vitreous humour, and occupying its place.

M. Kuhn, however, has lately met with a well marked case of ossification of the vitreous humour, the preparation of which is deposited in the museum at Strasbourg. It occurred in a man aged seventy, who had died of inflammation of the stomach. The left eye was healthy, but the right eye was in the following state:—The globe had sensibly diminished in size—it had lost its spherical figure, and presented the appearance of four furrows or wrinkles, which corresponded with the insertion of the recti muscles: it was heavy, and felt hard. When a horizontal incision was made from behind forwards, the sclerotic was found to be very thick, particularly at its posterior part, near the entrance of the optic nerve: the instrument was soon arrested by a hard body, filling the whole space of the eye-ball behind the crystalline lens, and consequently occupying the place of the vitreous humour. Immediately within the sclerotic was the choroid membrane distinct, and rather thicker than natural. The retina was unchanged. The solid body within was marked by the same depression which had been observed externally; it was of a pale white colour, and was internally of a cellular texture, like the cancelli of the long bones. The crystalline was indurated, and of a yellowish white colour; the optic nerve was wasted.—*La Clinique.*

—

50. *On the Operation for Cataract.*—Dr. Zeuschner, in a long paper in *Rust's Magazin*, for 1827, offers as the result of extensive experience, some new views respecting the operation for cataract by extraction. Although we are by no means satisfied of the correctness of these views, yet as they are presented in an imposing manner, being founded on extensive experience, we think it our duty to lay them before our readers. According to Dr. Z. the success of the operation of extraction of the lens, depends chiefly on the following circumstances. 1st. The operation should be performed on a dull day, or in a room open to the north, and not much exposed to light; this will he says sufficiently dilate the pupil. The customary method of effecting this by the application of narcotics, produces sometimes paralysis of the iris. 2d. After the removal of the lens, attention must be paid to remove the air bubbles which may have entered into the anterior chamber during the operation, and which may be effected by means of Daviel's spoon. This Dr. Z. considers very important, for if neglected he says the air bubbles are confined behind the cornea, and expanded by the animal heat, causing traumatic inflammation, which destroys the eye. 3d. The eyelids must not be closed after the operation by plasters; but the lower lid should be drawn down, which he effects by applying one end of a strip of adhesive plaster to the edge of the lid, then drawing it down, and applying the other end to the cheek. The supposed advantage of this is, that the tears and the aqueous humour may flow from the eye freely, and that it enables the surgeon to remove the plastic matter, which forms during the healing process from the cut edges of the cornea, and which, if not removed, acts as a foreign body, frequently occasioning inflammation. The objections that may be urged against this practice, viz. that it gives rise to a prolapsus iris, and the evacuation of the vitreous humour is, Dr. Z. asserts, entirely groundless. The upper lid, when moderately closed, prevents this sufficiently. Dr. Z. says that he has operated in this

manner on several hundred patients with the greatest success, and can prove this by credible witnesses. It is proper to add, that Dr. Z. is esteemed in Germany as a man of great integrity, and his opinions are valued as high authority.

SURGERY.

51. *Compound Fracture of the Olecranon.* By H. Earle, Esq.—Anchylosis frequently follows compound fractures extending into joints, and a most important practical question therefore arises, in what position such a fracture as occurred in the following case, should be placed? "A choice of evils presents itself to the practitioner—whether the limb should be placed in the extended position commonly employed in simple fracture of this part, by which the fractured surfaces may be closely approximated; but in the event of suppurative inflammation, the joint may become immoveable in a position which renders it nearly useless?—or whether the limb should be bent to a right angle, by which the fractured ends would be widely separated, but in the event of anchylosis, the limb would be useful for all the common purposes to which it is applied?"

Mr. Earle presents the following case as a good practical illustration of the propriety of attempting to unite the bone in the position most favourable to adaptation, and at the same time combating all the inflammatory symptoms with the most active treatment. Should the inflammation, however, continue, and the discharge clearly indicate extensive ulceration of the cartilages, Mr. E. thinks that it would be the duty of the surgeon to place the limb in such a position as would be most serviceable in the event of anchylosis taking place.

A man aged twenty-three, was admitted into St. Bartholomew's hospital, on the 1st of December, with a compound fracture of the right olecranon, produced by a blow on the elbow, from a poker, while in the act of raising his arm to defend his head. A small artery was divided, which bled very profusely. When admitted into the hospital, the olecranon was slightly retracted to the upper part of the posterior fossa of the humerus. The wound was accurately closed, and the hæmorrhage readily restrained by a compress. The external wound was rather below the seat of the fracture. Mr. Earle visited him a few hours after his admission, "at which time the olecranon was not in the least retracted, though it could be moved laterally in its proper cavity. The arm was placed on a pillow, extended to about an angle of 160 degrees, and was enveloped in cloths wetted with the coldest water. Cal. gr. iv. pulv. jalapæ. gr. xv. were given to him, and the strictest rest and an antiphlogistic regimen enjoined.

"On the 2d, extensive swelling and inflammation of the whole arm had taken place, with great pain in the joint. He was bled from the arm, and 30 leeches were applied round the joint. The cal. and jalap were repeated. As he complained of the cold applications, warm fomentations were substituted, from which he experienced much relief.

"3d.—The swelling was somewhat reduced, but he complained of excessive pain in and about the joint, and he had frequent convulsive twitchings in the arm, which disturbed his rest. A long splint was applied in front of the arm, with an additional pad at the flexure of the elbow, to maintain the exact degree of flexion which I have found best adapted to these cases, and which I have particularly advocated in a paper on this subject published in 1823. The wound had not united, and discharged a thin fluid resembling synovia. The bursa over the olecranon was much distended with fluid, and around this the integuments were very shining and inflamed. Being apprehensive of extensive cellular inflammation, which so frequently attends on suppuration of the bursæ, I made a free incision, and let out about half an ounce of turbid fluid. This afforded great relief, and there was no further irritation from this source, the wound readily healing in a few days. Thirty more leeches were applied round the joint.

"4th.—He still complained of much pain in the joint, which continued to pour out turbid thin synovia in abundance. Thirty more leeches were applied in the morning, and twenty again at night, and the limb was constantly fomented. His bowels were kept open, and fever diet continued.

"On the 6th the swelling and inflammation were much reduced; the discharge continued very abundant.

"From this day until the 10th he continued to improve, and could bear the surfaces of the joint to be pressed gently together, and the radius to be pronated and supinated without any increase of pain. On this day, (the 10th,) some purulent matter was mixed with the thinner discharge of synovia. I had constantly watched the appearance of the discharge, having determined, if a copious purulent secretion took place, accompanied with obstinate inflammation in the joint, indicating ulceration of the articular cartilages, that it would be right to disregard the separation of the broken bones, and to alter the position of the limb to a state of more perfect flexion. The puriform discharge was, however so small, and the inflammatory action had so much subsided, that I did not consider it necessary to make this alteration.

"The discharge from this time gradually diminished, and the wound closed in about three weeks from the receipt of the injury. During this time he had twice a return of pain in the joint, but this readily yielded to the application of leeches. Slight passive motion, particularly of the radius was commenced about the twentieth day, and gradually increased. The olecranon has united so firmly and perfectly, that it requires a most accurate examination to detect the line of fracture. He has at present the power of perfectly extending the arm and bending it to a right angle, and he is daily gaining freer motion and greater power in the joint. In supinating the radius with the arm bent, a slight grating sensation can be perceived, which causes some pain, which probably arises from partial absorption of the cartilage."—*London Medical Gazette, Jan.* 1829.

—

52. *Sinuses in the Region of the Pelvis.* By JAMES SYME, Esq.—Obstinate sinuses are met with no where more frequently than in the region of the pelvis. Those which remain after the opening of abscesses depending on carious vertebræ, or caries of the hip-joint, are incurable, and being of common occurrence have led to the opinion that little can be done for the remedy of any sinus thus situated. Mr. Syme has published, in our respected cotemporary the *Edinburgh Medical and Surgical Journal*, for April last, the histories of four cases, which show that the sinuses in question sometimes depend not on caries, but on death of bone, which exfoliating in some part of the pelvis far from the surface, causes continued irritation by the presence of the loose portion. Hence it is proper, in the treatment of all sinuses in this part of the body, not obviously proceeding from caries, to search for such exfoliations, and remove them if they are found to exist. We select the second case.

A cooper, aged twenty-eight, about seven years before he was seen by Mr. Syme, after long and severe exercise of the muscles of the thigh, perceived a sense of uneasiness in the right hip. Soon afterwards a collection of matter formed here, and was evacuated by a surgeon, who informed him that he laboured under a *fistula in ano*. "Having undergone various incisions, &c. he was told that his complaint was not a *fistula in ano*, and would require time for its cure. He then applied to a quack, who tortured him in various ways too tedious for description. Returning to the regular faculty, he employed a distinguished surgeon of Edinburgh, who opened some large abscesses which formed in the thigh lower down than the original one; but finding that his complaint, though alleviated, was not cured, he determined to abjure all surgical interference for the future, and leave the affair to nature. In conformity with this resolution he permitted the disease to take its own course for several years, working at his business when not prevented from doing so by pain, &c. At last, about two months before the time I saw him, his sufferings became so

excessive as to induce a departure from his plan, and he sought the assistance of a surgeon who had attended him in an early stage of his case. This practitioner found a piece of bone sticking at the orifice of a sinus and removed it; but having ascertained that there was more to come away, he tried to dilate the opening by sponge tent. The patient, in consequence suffered more than ever from the pressure of the sponge and confinement of the matter. On one occasion the tent slipped in, and required an incision for its removal, which naturally suggested to the patient that the bone might have been more easily extracted in the same way; but such a proceeding not being, I suppose, in accordance with the rules of *systematic surgery*, the tents were persevered in, until the patient, reduced to despair, determined on a change of men if not of measures, and applied to me.

"I found a large diffused abscess occupying the upper and back part of the thigh, and extending from the hip half way to the knee. In the fold which lies between the hip and thigh there was an opening, which allowed the probe to enter fully three inches in the direction of the tuberosity of the ischium, and at the bottom of this passage I felt a loose piece of bone. The patient was pale and emaciated. Owing to weakness and pain he walked with difficulty; and the long duration of his complaint, together with its progressive aggravation, rendered him very desponding as to the possibility of recovery.

"I made an incision into the abscess, and allowed several ounces of pus to escape. Next day I introduced a long straight probe-pointed bistoury into the sinus, and dilated it to the bottom so as to admit my finger, by means of which I discovered that the exfoliation lay in a cavity between the origins of the flexor muscles of the knee. Having dilated the mouth of this cavity with my knife, I easily extracted the bone, which was about the size of half a sixpence.

"The patient suffered no bad consequence from this operation, and soon found himself relieved from all his previous complaints. In the course of two or three days he walked nearly a mile to my house, and by the end of two or three weeks was able to resume his occupation.

"Some months afterwards he told me that the sinus still discharged a drop or two of matter, and that he occasionally felt a pricking pain at the bottom of it. I examined with a probe, and ascertained that there was a loose fragment of bone, to remove which I again dilated the sinus down to the tuberosity of the ischium; again felt that the exfoliation lay in a cavity between the tendons; and again enlarged the cartilaginous orifice so as to effect the extraction. The piece of bone now removed was extremely small, not much larger than a barley-corn. The wound healed directly, and the patient has remained free from complaint."

—

53. *Case in which the operation of Lithotritie was Successfully Performed.*—We are happy to learn from the April number of the *Edinburgh Medical and Surgical Journal*, that Robert Liston, Esq. of Edinburgh, has successfully performed, in the Royal Infirmary at Edinburgh, the operation of lithotritie. A man, aged seventy, had been for five months labouring under the symptoms of calculus, and the existence of a stone was ascertained by sounding. As the patient had a great aversion to being cut, and as his urine seemed to indicate a diseased state of the bladder, it was thought advisable to break down the stone in preference to the usual operation.

"On 13th November, a solution of opium having been injected into the bladder, Mr. Liston introduced Civiale's instrument, but owing to the restlessness of the patient, and the irritable state of the bladder, did not succeed in grasping it completely. Several small portions of stone, however, came away in the fangs of the instrument, and during the night. He suffered no inconvenience from the operation. On the 15th he passed a barley-corn incrusted with calcareous matter. On the 16th, a piece of straw with the same incrustation. He complained of pain in the testicles. On the 18th, a small abscess having formed in the scrotum was opened.

"The instrument was again introduced on the 25th. The stone was fairly laid hold of, but was so soft that it was crushed by the instrument, on withdrawing which several fragments of seeds were found adhering. He now confessed, that, while reaping during the last harvest, he had introduced a number of barley-corns into his urethra, but would not say for what purpose.

"The patient had repeated attacks of retention of urine after last operation, from the large portions of stone lodging in the urethra. He passed in all thirteen fragments having entire barley-corns for their nucleus, besides a much greater number having only small pieces of the beards. He had now little pain, and the quantity of mucus in his urine was inconsiderable. He was sounded several times, and, as nothing was felt in his bladder, he was dismissed cured, on the 16th December, 1828."

—

54. *Œdema of the Glottis relieved by Tracheotomy.*—A woman aged forty-two, entered the Hôpital de la Charité, January 25th, with dyspnœa, hissing respiration, and the usual symptoms of angina œdematosa; skin hot; pulse 140. "Sixteen ounces of blood were taken from the arm, and immediately followed by the application of leeches to the neck. The next day the symptoms were relieved, although the pulse still continued very frequent. M. Chomel, on examining the throat, perceived that the epiglottis was red and swollen, with some white spots on the left side; and it appeared now to have become a question whether the case was one of œdematous angina, or of false membrane. An emetic was ordered, but without exciting vomiting, and forty leeches were applied to the throat. For the next two days the symptoms continued without any material change, but on the third the respiration became more difficult than hitherto, being sonorous during expiration as well as inspiration. Another large bleeding, and the application of leeches, were once more had recourse to, but on this occasion without benefit. The difficulty of breathing gradually increased, and by five o'clock in the afternoon suffocation appeared to be impending. M. Chomel sent immediately for M. Roux, when it was agreed to perform the operation of laryngotomy. The incision was made in the interval between the cricoid and thyroid cartilages, and continued down to the membrane. A vessel, apparently a vein, bled so freely, that M. Roux was obliged to suspend the operation, with a view of tying it. The patient, however, who up to this time had breathed with difficulty, now ceased to do so, the pulse was lost, and life appeared extinct. M. Roux, regardless of the flow of blood, instantly plunged the knife through the crico-thyroid membrane, making a large opening, into which, however, the blood only flowed, and the chest still remained without movement. M. Roux then introduced a sound, and repeatedly forced air from his own lungs, and drew it out again with part of the blood. After this artificial respiration had been kept up for a few minutes, the patient made a slight movement, and natural respiration was gradually restored; the sound was removed, and a silver canula introduced in its place, sufficiently large to fill up the aperture in the larynx, thus preventing the blood from being able to flow into it. On the 12th of February, a fortnight after the operation, the patient had begun to breathe by the larynx, the wound in which, however, was still kept open."—*Lond. Med. and Surg. Journ. April*, 1829.

—

55. *Case of Hernia, in which a Fold of Intestine was contained in a Sac between the Abdominal Muscles and the Peritoneum.* By Henry Earle, Esq.—A strong healthy man, aged thirty-five, had been ruptured on both sides when about five years old, in consequence of a heavy boy sitting down on his abdomen, when he was lying on the floor: both herniæ had protruded very suddenly and at the same time. He had constantly since he was ruptured worn a double truss, and conceived that he had always been able to return the herniæ. On the morning of the 18th November, 1828, "on lifting a heavy weight, he felt a pain in the right hernia, the truss being on at the time. No sensible external swelling could be felt at the moment, on removing the truss. The pain conti-

nued increasing throughout the day, and was aggravated on attempting to empty the bowels. Gradually the swelling took place, or, as he supposed, the hernia descended; and, as he could not replace it, he sent for his medical attendant very early on the morning of the 19th. Bleeding, purgatives, and the taxis, were employed in vain; and, as the abdomen was becoming very tender, accompanied with vomiting and constipation, I was requested to see him. On examination, the tumour, which was about the size of a hen's egg, was not very tense, and, on very slight pressure, part of its contents receded within the abdominal ring, but immediately returned on remitting the pressure. As the symptoms were very urgent, I recommended an immediate operation. On laying bare the hernial sac, it was at once apparent that no stricture existed at the external ring, which readily admitted my little finger before the sac was opened. On opening this cavity, a considerable quantity of reddish turbid serum escaped, and the sac collapsed, without any omentum or intestine being apparent. On passing my finger through the external ring, within the sac, I found a large fold of very dark-coloured intestine, to the extent of about seven or eight inches in length, curled round behind the abdominal muscles, and separating them from the cavity of the peritoneum. The space occupied by this portion of gut extended nearly to the symphysis pubis in one direction, and outwards for some distance towards the internal ring, below; the sac and its contents rested on the external iliac vessels. It required some time and consideration satisfactorily to make out the nature of the hernia, and the plan required for its return. As the external ring was very large, I brought out the coil of intestine, after dividing the whole extent of the external portion of the sac. I then found that the hernia was a direct hernia, the spermatic cord lying on its outer side. At the full extent of my forefinger, introduced through the external ring, I could feel the neck of the sac very closely surrounding the gut—so closely, that I could not succeed in drawing down any fresh portion of intestine. Much caution was required in dividing the neck of the sac, in consequence of the very turgid state of the gut within the ring; and I experienced considerable difficulty in consequence of the curved form of the common hernia knife, which would not admit of my employing it with safety at so great a depth, without dividing the external ring to some extent. This difficulty would have been readily overcome if I had been prepared with a narrow straight knife, made on the same principle as the common probe-pointed hernia knife; which I could with facility have carried down to the stricture, with its flat surface in contact with my finger. After freely dividing the neck of the sac, and drawing down a fresh portion of gut, I was enabled to return the whole; when the circumstances of the peculiar nature of the hernia became still more evident, as there remained a large cavity behind the lower margin of the abdominal parietes, the peritoneum being pushed up by the hernial sac. The course of the spermatic cord, and the epigastric artery on the outer side of the hernia, could be distinctly felt, and the iliac vessels below could be traced for some distance. It was necessary to employ a very large compress to fill this cavity and prevent the escape of the gut. The patient was directed to take only a few spoonsful of gruel occasionally, and to have clysters thrown up. In the evening some leeches were applied round the neighbourhood of the hernia. Stools were procured before morning, the patient had no bad symptoms, and recovered in the course of ten days."

This hernia appears to have been produced by the direct application of pressure on the abdomen, and to have taken place through the external ring, without descending along the course of the spermatic cord. The patient was in the constant habit of wearing a truss, and when protected with this he was able to carry very heavy loads. Mr. Earle thinks it probable that the neck of the sac became contracted, and the pad of the truss not permitting the escape of the gut through the external ring was the cause of the hernia diffusing itself between the peritoneum and abdominal parietes. When the gut first became strangulated there was no external tumour, which gradually formed on removing the

truss, in consequence of the effusion which took place within the sac. "This explains the slight degree of resistance afforded by the tumour, and apparent recession of a part of its contents within the abdomen—a deceptive circumstance, well calculated to mislead, and to induce a practitioner to delay an operation." But Mr. Earle adds, experience has long since convinced him that there is little danger to be apprehended from the operation, when performed in time. In 1828, he states that he has "operated on nine cases, and did not lose a single patient, and in not one of these cases would it have been possible to have returned the hernia without operation, whilst, in some of them, a very few hours delay must infallibly have proved destructive."

The surgeon should always ascertain, by introducing his finger, that the gut is actually replaced in the cavity of the peritoneum, as it is possible that there may exist a sac behind the external ring between this and the peritoneum, and that the neck of this sac may constitute the stricture.—*London Medical Gazette, May*, 1829.

—

56. *On the Reduction of Hernia.* By M. Dupuytren.—The means of reducing hernia are various, and more or less efficient. The application of the hand, or taxis, is the most methodic and advantageous; it is modified according to the kind of hernia, its size, and other circumstances. Among the empirical methods adopted for the same purpose, there is one which approaches to this. The patient being laid upon his back, the feet are raised as high as possible, leaving the head and shoulders upon the ground; the weight of the viscera in the abdomen acts upon the portion of bowel in the hernia, dragging it towards the interior, sometimes effecting the reduction. Here there is a mechanical action, not from without, inwards, as in the taxis, but in an opposite direction. Various topical applications are made to strangulated herniæ; some of these, as cold water, &c. are intended to diminish the volume of the parts in the sac. The action of cold produces several effects; it increases the tone of muscular parts, often, indeed, giving rise to sudden contractions, capable of overcoming the obstacle which has been opposed to the passage of the intestinal contents; so that strangulated herniæ are sometimes speedily reduced by the affusion of very cold water. Ice, applied with perseverance, condenses the liquids and gas, and thus also facilitates their return into the abdomen. Other local applications appear intended to act upon the secretion of the mucous membrane of the part; such as cataplasms of senna, gratiola, &c. These are asserted to have good effects in the cases of elderly persons, in whom it is well known that the slowness of the peristaltic motion more frequently occasions overloading than actual strangulation; a circumstance which must be kept in mind, that we may not trust too much to these measures where the patient is young, and the case one of genuine incarceration. As experience has demonstrated that the manner in which purgatives act is by facilitating the expulsion of the contents of the hernia, it may be asked why more active substances are not employed; for example, the croton oil?

The nausea and vomiting so frequently present in such cases, does not always contraindicate the use of purgatives, as they sometimes succeed when more methodical treatment has failed. With regard to enemata, they ought never to be omitted unless there be evident symptoms of inflammation.

Some local applications are intended to produce relaxation at the point of strangulation; thus the extract of belladonna has recently appeared to produce good effects in the hands of M. St. Amand.

The rapid sinking of the patient frequently produces the relaxation favourable to the reduction of the hernia. This is effected by means of copious general bleeding; the application of leeches to the tumour; and long-continued immersion in a warm bath; means which in general are not employed with sufficient energy. These observations show, that the operation is not the only resource in such cases; but it is a very important point that the operation be not delayed after its necessity has become obvious. A consideration of all the

circumstances can alone lead to a satisfactory conclusion. The following case will show that at the Hôtel Dieu other means are tried before operating.

"A woman, aged fifty, had laboured under crural hernia of the right side for more than ten years. It frequently became obstructed; but repose, the horizontal posture, and the taxis, had always sufficed to restore it. On the 24th of February, after some efforts to carry a load, the tumour suddenly became the size of a small egg, and symptoms of strangulation manifested themselves with violence. The usual methods to produce reduction were adopted without avail. Next day she was brought to the hospital, when she was bled from the arm, the tumour covered with leeches, and she was put into a warm bath, where she remained nearly two hours. At the end of this time faintness came on, when the 'interne' took the opportunity of applying the taxis, by which means he entirely reduced the hernia."

M. Dupuytren stated, that at the Hôtel Dieu they succeeded in reducing only one-third of the herniæ brought to them, while in civil life at least two-thirds were reduced. Among the causes of this difference, the principal is, that those cases in which reduction has already been attempted without success are generally sent to the hospital. In the better ranks of life the causes of strangulation are much less frequent; the patients much more ready to call in assistance. If we are in haste to operate on such individuals, some of those who die might possibly be saved; but at the same time we run the risk of practising an operation which is not called for. Besides, there is never more than twelve hours between each visit; and it is generally in this interval that reduction takes place. Prudence, therefore, requires that we ought not to be in too great haste; and experience proves that gangrene of the intestine neither comes on so easily nor so soon as is generally said. We are now less imposed upon by the brown colour which the organ assumes in consequence of the constriction; and knuckles of intestine are now replaced in the abdomen, the appearance of which would formerly have been regarded as indicating the necessity of establishing an artificial anus. It is necessary, then, to multiply the means of reduction; to persevere as long as possible in their employment, and only to despair of their success when the continuance of the local mischief, and the increase of the general symptoms, give rise to well-grounded apprehensions.—*Clinical Lectures of M. Dupuytren, La Clinique.*

—

57. *Secondary Hæmorrhage.*—Mr. Hodgson, in his valuable work on the Diseases of the Arteries, observes that secondary hæmorrhage occurs at two periods after the application of a ligature to an artery:—either within a few hours after the operation, or between the sixth and the thirtieth day, when the ligature may be expected to be detached from the vessel. A case of aneurism of the posterior tibial artery is related in the *Midland Reporter*, in which the femoral artery was tied; in this instance secondary hæmorrhage did not occur until the forty-second day from the operation, and twenty-four days after the ligature had come away. Dr. Johnson mentions, in his Journal for April last, that he has seen a nearly similar case. It was that of a patient with popliteal aneurism, whose femoral artery was tied in the thigh. "In twenty-one days the ligature came away, and a *fortnight* after that uncontrollable secondary hæmorrhage occurred. The common femoral was then secured, and *thirteen* days exactly after the separation of this second ligature, secondary, and ultimately fatal, hæmorrhage ensued."

—

58. *Ununited Fracture of the Femur, successfully treated by the Seton.* By Dr. Dohldorf.—This case, which is related in the Report of the Medico-Surgical Institution at Madgeburgh, was that of a man aged twenty-four, of very healthy constitution, who broke his thigh-bone near the middle. At the end of ten weeks, no union having taken place, bandages, splints, and a variety of remedies were tried, but these failing, he was, in September, admitted into the Medico-Surgical Institution, under Dohldorf. On the 3d of October, Dr. D. intro-

duced a seton between the ends of the bone, this was followed by so considerable a degree of inflammation, that it was found necessary to remove the seton on the 11th; suppuration was very profuse, and a great many fistulous abscesses formed beneath the muscles, so that the success of the operation, and even the life of the patient, was despaired of; at the end of a month, however, reunion of the fracture began to take place; the wound from the operation, and the abscesses, healed, and at the end of December, a very firm callus had formed. The deposition of the bony matter, which, from this period became too copious, was diminished by compression; and at the beginning of May, both limbs were of equal length, and, except a slight muscular weakness in the limb, the patient was perfectly cured.

—

59. *Extirpation of a Cancerous Tumour situated in the Interior of the Rectum: Cure.*—M. Maurin, adjunct surgeon to the Hospital of Versailles, has peformed this operation successfully upon a person thirty years of age, who had suffered from the disease six months, and in whom the touch manifested a tumour in the rectum, of an oval form, and about three inches above the anus. It was hard, irregular, ulcerated, moveable, accompanied with severe lancinating pains, and formed a very great obstacle to defecation. The sphincter was cut at its posterior part to the extent of five or six lines, by means of a curved probe-pointed bistoury, directed by the index finger into the anus. The tumour being seized with hooks was by gentle and gradual means drawn outside, and its adhesions cut with scissors curved flatwise. The tumour, having an oval form, a little flattened, was above two inches in length, ulcerated at its unconnected surface, and apparently arising from the thickest part of the mucous membrane, since there was no portion of muscular coat upon the part excised. An abundant hæmorrhage followed the operation, which, however, was arrested by plugging. The bleeding removed the tendency to inflammation which appeared, and in about two months the patient left the hospital perfectly cured. Care was taken in the dressings subsequent to the operation, to introduce a large tent of lint into the intestine.—*Nouvelle Bibliothèque Médicale, February*, 1829.

—

60. M. Lisfranc's *Treatment of Elephantiasis.*—This consists, 1st, in reducing the nourishment one-fourth part, then a third, and, finally, one-half: 2nd, in the employment of blood-letting, or application of leeches. Antiphlogistics persevered in until the inflammatory symptoms are entirely dissipated. After this, he has recourse to compression. When these means do not succeed, he applies numerous vesicatories, or resorts to scarifications, making one hundred at a time. In one case, the number of these amounted to three thousand.

But to insure success it will be necessary to use great numbers of leeches every time that inflammation supervenes. If this inflammation be of the erysipelatous kind, it must be left to run its course, at least if it be not too violent, (in which case leeches and antiphlogistics will be required,) since experience has shown that this form of inflammation is favourable to the resolution.—*Ibid.*

MIDWIFERY.

61. *Expulsion of the Placenta, Three Months after Abortion.*—Mr. Thornton relates, in the *London Medical Gazette*, for February last, an instance of this, which occurred in a lady who aborted at a little beyond the fifth month. The placenta did not come away with the embryo. The lady continued in an indifferent state of health for the next three months, when, after taking a ride on horseback, she was attacked with slight pains and a uterine hæmorrhage, which were followed by the expulsion of the placenta. It weighed seven ounces; substance hard; shape and size of a good pear; appearance dark and livid. The

following spring the lady became again pregnant, and has since had several children, and enjoys good health.

—

62. *Delivery of a Fœtus through the Abdominal Parietes.* By Dr. Muller.—"A female, thirty-three years of age, feeble in constitution, and of middle stature, in the advanced stage of her first pregnancy, fell from the height of a story on a stair. After recovering from the fainting fit, which was the cause of her fall, she felt violent pain in the lower belly, and had considerable uterine hæmorrhage. These affections were removed by antiphlogistic treatment; but left her in a state of extreme debility. Four weeks after the accident she was seized with severe contracting pains like those of labour; and on manual examination, it was found that the *os uteri* was puffy and open. The apparent labour, however, did not make any progress. There was at the same time a copious discharge of sanguinolent mucus, constant sickness, extreme prostration of strength, hurried pulse, general paleness, and uninterrupted perspiration. The patient had never observed any movement of the fœtus after she met with the fall. Several days having been passed in these unfavourable circumstances, an inflammatory tumour suddenly appeared in the region of the umbilicus, accompanied with most acute pain and an intolerable sense of burning. The passages continued moist, but the *os uteri* did not increase in openness. Seven days after the false labour pains appeared, the tumour opened and discharged a moderate quantity of fetid pus. In the course of the same day, when the aperture had attained the diameter of an inch, the hip of a fœtus presented itself. This was in so advanced a state of putridity, that it was easily separated from the body; but it was with difficulty extracted from the opening. The thigh and foot followed, and after them the chest, of which the ribs, sternum, and clavicles were successively removed with a pair of lithotomy forceps. The arms were next extracted, then the bones of the head, after being broken down with the crotchet; and, in short, every bone of the fœtus was withdrawn from the same opening. A slimy membrane, and a light, spongy, cheesy mass in small portions of various sizes, consisting evidently of the placenta and membranes, were in the last place separated. During the progress of this extraordinary delivery, which lasted two hours, the uterus contracted occasionally with considerable force. The patient suffered much from the irritable state of the abdominal aperture. The sore was dressed with dry lint, after an injection had been used of tepid water and chamomile infusion, *which passed through the vagina.* The lochial discharge flowed partly through the natural passage, partly through the aperture in the abdomen. Under the use of generous diet, the patient, notwithstanding her unpropitious condition, gradually recovered. The discharge, which had at first and for some time an insupportable stench, gradually lost its odour; the wound in nine days had closed so far as only to admit a quill; and the secretion of milk receded. The patient's appetite and sleep continuing good, and her mind calm and cheerful, her farther recovery proceeded with rapidity; in six weeks the opening was healed up altogether, and she was able to resume her household occupations in her usual state of health.

"Dr. Müller, in his remarks on the nature of this case, endeavours to establish that it was not an instance of extra-uterine gestation, but of ordinary pregnancy; that the accident must have excited inflammation and suppuration of the anterior surface of the uterus; that this disorder passed by continuity of surface to the abdominal parietes, and gave occasion to the false passage. This certainly appears the only rational account that can be given of the progress of the case. The complete recovery of the patient in such disastrous circumstances is certainly, as the author observes, a most extraordinary instance of the restorative powers of life. 'Nature, too, has her Cæsarean operation!'"—*Ed. Med. and Surg. Journ. April*, 1829, *from the Magazin für dié Gesammte Heilkunde*, 1828, *xxviii. i.* 157.

—

63. *Six successive Hip Presentations in the same Individual.*—An instance of

this is related in "*La Clinique.*" The woman was well formed, of good constitution, and the pregnancy presented nothing extraordinary.

64. *Hip Presentations.*—In the Maternité in Paris, in twenty-thousand cases, three hundred and sixty were hip-presentations; of these, only thirty required the interference of art.—*La Clinique.*

MEDICAL JURISPRUDENCE.

65. *Case of Poisoning with Nux Vomica.* By Dr. Basedow, of Merseburgh.—A young lady, designing to take a laxative as a remedy for head-ache and tooth-ache, from which she was suffering, swallowed by mistake, at midday, a table-spoonful of powdered nux vomica. "She became alarmed on remarking its intense permanent taste; but did not call for assistance till she was almost instantaneously deprived of the power of walking and fell down, yet without losing recollection. Dr. Basedow saw her immediately after, and recognized the nature of the powder she had taken by what remained of it. She lay in bed with the countenance pale, and exhibiting alternately an expression of indifference and anxiety; she alternately wept and smiled; the eyes were wide open, and the pupils contracted. The respiration was irregular and short, the pulse also irregular, small, not hard or frequent, the skin cool. The forearms were constantly in a half bent position, and the hands and fingers affected with convulsive twitches; the legs, on the contrary, were motionless, rigid, and all the muscles hard and tetanically contracted. The patient had not the slightest pain or sickness, but her breathing became every moment more difficult, and she complained of impending suffocation. An emetic of five grains of tartrate of antimony which had been sent for was administered without delay, and in the course of ten minutes it operated with the assistance of draughts of tepid tea, and tickling of the throat. After repeated evacuations of the stomach, the matters of vomiting came away without any powder, by which time the symptoms were somewhat relieved, especially the dyspnœa. Small doses of a mixture of oil of turpentine and sulphuric ether were then administered every half hour. In the evening the tetanic spasm of the muscles of the legs, as well as the convulsive movements of the hands had ceased, and the respiration was free. For three days after the patient had a clouded look, complained of a sense of bruising over the whole body, and of weariness and rending in the limbs as if she had been fatigued by a long walk. The tooth-ache and head-ache disappeared with the commencement of the symptoms of poisoning."—*London Medical Gazette, March*, 1829.

66. *Case of Poisoning with Nux Vomica.* By Mr. Baynham, of Birmingham.—A girl, aged twenty, swallowed half an ounce, (avoirdupois,) of powdered nux vomica, for the purpose of destroying herself. When seen by Mr. Baynham, an hour after it was taken, "she had violent spasmodic contractions of the voluntary muscles, but more especially of the limbs, with extreme pain in all the parts affected. The spasm at times continued for three or four minutes, and was then succeeded by some quick change of position, or a long succession of convulsive motions. The muscles of the back were so much affected by spasm as almost to render it a case of opisthotonos. Finding it impossible to retain her in a chair, she was placed upon a bed, and with the assistance of her neighbours, preserved in that situation from local injury. The action of the heart was slow and feeble; the pulse somewhat indistinct, and beating at an average in the first half hour, 50 in a minute. The surface of the body was cold, and uniformly wet with perspiration. The functions of the stomach and bowels not perceptibly disordered. She remained sensible throughout her illness. A strong solution of sulphate of zinc was administered with difficulty, since, with

every desire to second the object in view, she could not avoid biting through the cup by an uncontrollable action of the temporal and masseter muscles. A metallic vessel, which was then substituted, received the impression of her teeth. The emetic operated freely in a few minutes, but did not immediately relieve the symptoms. Abundant portions of gruel, and a large dose of castor oil, constituted the whole after-treatment. The pulse at the expiration of two hours averaged 70, and had become firm. The convulsions gradually subsided, and finally ceased in about four hours from the period of attack, after which she slept, and awoke early in the evening without any other feeling of illness than what resulted from exhaustion. The next day, although still feeble, she could walk from home."—*Ibid.*

—

67. *Case of Suicidal and Infanticidal Mania.*—"E. B. a young, and hitherto healthy woman, the mother of two children, in humble life, but not in indigence, applied at the Hitchin Dispensary, in consequence of the most miserable feelings of gloom and despondency, accompanied by a strong, and by her own account, an almost irresistible propensity, or temptation, as she termed it, to destroy her infant. This feeling first came upon her about a week before, when the child was a month old; and she was now sunk into an extreme state of dejection. She begged to be continually watched, lest she should yield to this strange propensity. The appetite is bad—bowels loose—stools dark and offensive—has occasionally discharged portions of tape worm from the bowels. Pulse natural; sleeps ill. This account is taken from the Dispensary report-book, October, 1824, and the treatment need not be mentioned, as the symptoms continued without alteration till March, 1825, when the patient took the small-pox. During the eruption, the mind was serene and happy, and she was free from the dreadful temptation by which she had been previously harassed; but, upon the subsidence of the small-pox, the disease returned with its former horrors.

"About the middle of April, the disease, without any apparent cause, began to decline, and she was, at the end of the month discharged from the Dispensary by her own request: her child was now six months old. She nursed it herself from its birth, and continued to do so till it was twelve months old. She remained free from any disorder until the spring of this year, 1828, when she had another child, and, about a month after the birth of it, she was assailed by this propensity to destroy it. The symptoms continued till the child was half a year old, and from that time have gradually declined. Occasionally for a few days, a sort of metastasis takes place; the propensity to destroy the infant entirely subsides, and the place of it is supplied by an equally strong disposition to suicide. It is worthy of remark, that during the most distressing periods of her disease, she is perfectly aware of the atrocity of the deed she is so powerfully impelled to, and prays fervently to be enabled to withstand so great a temptation. She has repeatedly told Dr. Hawkins, that the inclination to destroy her child has been so powerful, that she should certainly have yielded to it, if she had suffered herself to use a knife even at her meals;—for a knife is the instrument which she feels necessitated to employ in the perpetration of the act. Whilst this extraordinary state lasts, the bowels are uniformly relaxed, and the stools of a dark colour and offensive odour. She has suckled all her children for twelve months; she has had three children, but this dreadful state of mind has supervened on the birth of the two last only. It may be proper to observe that, when suffering from any bodily indisposition, the mind is serene and happy and free from any kind of morbid feeling. This poor woman is by no means deficient in affection for her infant even in the most trying period of her disease. This case appears of much importance in a medico-legal consideration. Is she of sound or unsound mind? And supposing in this case suicide were committed, and a verdict of insanity were returned, should not the same verdict be returned, supposing infanticide were the crime which the jury had to consider? The case altogether presents a very remarkable moral phenomenon."—*Med. Chir. Rev. April*, 1829.

68. *Injury from Sulphuric Acid.* By Robert Christison, M. D. &c.—By the English statute, which has recently been extended to Scotland, the wilfully, maliciously, and unlawfully throwing or applying sulphuric acid, or other corrosive substance calculated by external application to burn or injure the human frame, and by means thereof to murder, maim, or disfigure, is a capital crime. Dr. Christison relates, in the *Edinburgh Medical and Surgical Journal*, for April last, a very interesting trial under this statute.

Hugh Macmillan and his wife, Euphemia Lawson, were indicted for maiming, disfiguring, and disabling Archibald Campbell, by throwing sulphuric acid over him. It appeared, in evidence, that the Macmillans and Campbell lived in the same house, and were on bad terms; and that about midnight, October 17th, as Campbell, on his way up stairs to his lodgings, had approached Macmillan's door, the door opened, and the wife of Macmillan threw over Campbell a liquid which by its intense burning he at once suspected to be sulphuric acid. Campbell was conveyed, without delay, to the infirmary. "The skin on the left side of his face was partially removed, and the whole presented at first a white disorganized appearance. The eyelids of both eyes were much inflamed and swollen, and the left eyeball was also severely involved in the mischief, but the right eyeball was uninjured. The skin of the inside of the lips was also white and swollen, and on the back of the left hand, as well as between the fingers, there were white excoriated streaks. In the course of sixteen hours the white marks turned brown. The pain of the face and eyes, which was at first excruciating, became easier under the use of suitable applications. But as at the time of the visit, about twelve hours after the accident, the pain of the left eye, extending to the head, evidently threatened a severe ophthalmia, he was bled from the arm, and next day the operation was repeated. From these measures he derived great relief. The inflammation and disorganization of the eye, however, went on increasing, and soon ended in the bursting of the cornea and discharge of the aqueous humour and crystalline lens. Towards the close of the fifth day, namely, on the evening of the 22d, while apparently doing well, he had a shivering fit, and next morning complained of acute pain at the bend of the right arm, where he had been bled. Inflammation immediately sprung up around the orifice, general swelling of the arm came on, and progressively increased for the three following days. Severe febrile symptoms ensued, and afterwards also difficult breathing, with other signs of pulmonary inflammation. Under these complicated disorders he gradually sunk, and died on the morning of the 30th October."

The body was examined the day after death, by Dr. Hunter and the late Dr. Cullen, who made the following report:—

'The right arm was carefully examined and anatomized. We found the vein from which he had been bled very highly inflamed at the wounded part at the bend of the arm. From this point the inflammation had extended upwards to the great vein of the arm and shoulder, and downwards to the small veins of the forearm. These vessels were almost filled with purulent matter, and partly obliterated. The great veins at the upper part of the chest were natural.

'There was a small quantity of serum in the cavity of the membrane which invests the heart, but that organ was itself sound.

'The membrane which covers the lungs and ribs, called the pleura, was inflamed, and covered at the back part with the usual product of inflammation. Sero-purulent fluid was found in both cavities of the pleura. Both lungs when cut into were found highly inflamed, and particularly in the upper and lower lobes.' ["I may here add," says Mr. Christison, "in explanation, that both lungs were most extensively consolidated by serous effusion, red hepatization, and diffuse tubercles, intimately intermingled; and that the last morbid deposition was distributed in irregular masses, some of them of the size of a pigeon's egg, so as to occupy not less than a third part of the entire volume of the lungs."]

'The left eye had its anterior part entirely destroyed. Some of the hu-

mours [the aqueous humour and crystalline lens,] had escaped, and the whole organ was disorganized, and absolutely incapable of recovery.

'Water was found in considerable quantity on the surface, in the cavities, and at the base of the brain. That organ itself was natural. No other morbid appearance was any where observed.

'Upon the whole, we are of opinion that Archibald Campbell died of inflammation of the veins of the right arm, and of inflammation of the lungs, the former caused, according to the best of our judgment by the wound of the vein in bleeding.'

The wife was found guilty.

The indictment in this case contained a separate charge of murder, from which, however, the lord advocate departed at the commencement of the trial. We mention it here for the purpose of introducing some interesting and important observations on the subject, by Dr. Christison. The lord advocate abandoned the charge of murder, because, says Dr. C. "while it was quite certain that the evidence would establish another capital offence, his entering on the charge of murder would involve a nice legal question, as to the responsibility of the prisoner for an event which depended only indirectly on the injury inflicted by her, and directly on an insignificant surgical operation. The question, however, must be understood as having been waived, not decided. The decision of it of course will not lie with the medical witness. But it may be right for him to understand the nature of the evidence which in a similar case might be required from him with a view to its decision in the proper quarter. Now in charges of homicide, although it be proved that the injury inflicted by the prisoner occasioned death not directly, but indirectly, through the medium of a cause coming into action after the injury, the prisoner will nevertheless be held responsible, provided the injury was serious, and it shall appear that the intervention of the secondary cause though not a common event, lay in the natural course of things. Hence, if a person, after receiving a serious injury, should die of hospital gangrene caught by his repairing to an infirmary where it was prevalent, or of diffuse sub-cutaneous inflammation, arising in consequence of there being at the time an epidemic tendency to that affection, or even of tetanus, a disease of the supervention of which we can neither trace the causes, nor calculate the probability,—in all these circumstances would not the person who inflicted the injury be held responsible for the event? This appears to have been laid down in regard to tetanus, in the case of Alexander Mackenzie. The medical evidence showed that tetanus, though an effect of wounds, neither necessary, nor common, nor such as may be anticipated, is a consequence not sufficiently *accidental* to relieve the prisoner from responsibility, if the injury was severe and his purpose deadly.* Does inflammation of a vein arising from phlebotomy,—that operation being rendered imperatively necessary by the effects of an injury,—belong to the description of accidents here enumerated? Most surgeons, I conceive, would reply, that it lies at least as much in the natural course of events as tetanus. Neither tetanus nor phlebitis is common after an injury, and neither would ever be held in view by a surgeon in forming his prognosis; but if there is any difference, the latter is on the whole the more common. Can phlebitis be considered a less natural event in the sequence of effects, merely from the circumstance that an operation is necessary for its development, provided the operation become absolutely imperative in consequence of the direct results of the injury? It must be admitted that these are all questions of great nicety, and difficult determination."

—

69. *Chemical Analysis of various Articles of Dress, in order to ascertain the Nature of Fluid poured upon them.* By Drs. Christison and Turner.—It was thought proper in the preceding case, to determine by chemical analysis the nature of the corroding fluid, and we copy the account of the experiments,

* Edin. Med. and Surg. Journal, xxviii, 414.

instituted for this purpose, as they exemplify the mode of procedure in parallel cases, and also supply the best process for the detection of sulphuric acid in the contents of the stomach of those who have been poisoned with it.

The articles analyzed were put into Drs. C. and T.'s hands a fortnight after the acid was thrown on them. "They consisted of a portion of the rim of a hat, affected here and there through and through; an uninjured part of the same hat, for comparative analysis; part of a black stock with its lining and stuffing, all much destroyed; part of the sleeve of a brown coat and its lining, likewise corroded and reddened; and an uninjured part of the same coat for a comparative experiment. The hat and stock, where affected, were moist and sour to the taste.

"The injured part of the hat was boiled in small fragments with distilled water, and a reddish-brown fluid procured by filtration. This fluid had an acid taste, reddened litmus strongly, and yielded with acetate of baryta a copious brownish precipitate, which was rendered white by nitric acid, and being then collected and dried at a red heat weighed 4.3 grains. A small portion of this powder being mixed with a little charcoal, it was heated for two minutes in a platinum spoon before the blow-pipe. The product, when diluted muriatic acid was poured on it in a tube, effervesced and emitted an odour of sulphuretted hydrogen, the evolution of which was farther proved by a piece of filtering paper, moistened with a solution of acetate of lead, becoming black when suspended within the tube.

"We then proceeded to make a comparative set of experiments with the uninjured portion of the hat. A reddish-brown fluid was procured, which faintly reddened litmus, and gave with acetate of baryta a scanty cloud, insoluble in nitric acid, but not forming any deposite when left some hours at repose.

"The injured portion of the stock was torn into shreds and treated in the same manner as the injured part of the hat, with precisely the same results. The sulphate of baryta procured from it weighed nine grains.

"The injured part of the coat sleeve and lining was also subjected to the same process, except that the barytic precipitate was collected by the process of subsidence and affusion without a filter, as it was scanty. The results of the experiments with it were precisely the same as those mentioned above, and they were all procured characteristically, although the sulphate of baryta formed did not exceed nine-tenths of a grain. A comparative analysis was made of an uninjured part of the sleeve. But the aqueous fluid only tinged litmus faintly red, and yielded with acetate of baryta a faint cloudiness without a deposite.

"These experiments made it certain that the fluid used was sulphuric acid." —*Ed. Med. and Surg. Journ. April*, 1829.

—

70. *Alleged attempt to effect abortion.*—About the middle of April last an account of a supposed attempt to procure abortion appeared in the London newspapers, and excited "a considerable sensation," both from the apparent atrocity of the circumstances, and from the full anticipation that the individuals accused, (of whose guilt no doubt was entertained,) would be executed. The *primâ facie* evidence, as it appeared on the coroner's inquest, was said to be of the most positive nature, and so satisfactory to the jury, that, in the fullness of their gratitude, they passed a vote of thanks to the gentleman who had enabled them, by the clearness of his statements, to comprehend the intricacies of the case, and to bring in an unanimous and decided verdict.

The document which afforded so much satisfaction to the coroner's jury, was an account of the post mortem examination, and is signed by Lauce Healey, surgeon. This document is published in the *London Medical Gazette*, for April 15th; and whether considered with regard to the orthography, the grammar, the description of the appearances, or the inferences deduced from them, is not a little remarkable.

The testimony of medical men in a court of justice often involves questions of life and reputation, and, as the study of medical jurisprudence has been too

much neglected by physicians in this country, the pointing out the errors of others may be salutary, by attracting attention to the subject, and, as a warning to those who are utterly imcompetent, how they venture to express their crude opinions, and become accessory to the loss of the life or reputation of a fellow creature. With this view we copy the remarks of the editor of the London Medical Gazette, on the statement of Mr. Healey, omitting the original, as it would render this article too long, and the reader will learn enough of it from the following observations.

Passing by the style and manner of the composition of Mr. Healey, "we shall direct attention," says the editor of the Medical Gazette, "in the first place to that clause of the paper which refers to the condition of the mamma. The enlargement of this gland, the increased size of the lactiferous tubes, and the loaded state of the blood-vessels, one and all of them the natural results of pregnancy, are looked upon as proving, 'that strong doses of powerful medicines had been administered.' This passes belief: that any man should have delivered such an opinion under ordinary circumstances would only have been regarded as an example of marvellous folly, but that an inference, placing the lives of two individuals in jeopardy, should have been thus confidently deduced from such insufficient premises, constitutes a combination of ignorance and audacity of which the evidence of our senses alone could have convinced us.

"In the thorax the only circumstance worthy of note is, that the pericardium was 'rather thinner than usual,' a description in keeping with the anatomical skill displayed by the narrator throughout. Notwithstanding the preternatural thinness of this membrane, however, the heart and lungs were 'healthful.' The abdomen showed marks of general inflammation; the stomach and intestines were distended, and the former contained 'grumous' vegetable matter, smelling strongly of savine and rue. Now, when we consider the interval which had elapsed between the administration of these and the death of the patient, and that it appeared in evidence that Mr. Healey had himself administered various vegetable medicines, some of which were also possessed of powerful odour, it strikes us as a remarkable acuteness of the sense of smell to be able to distinguish both the savine and rue amid the variety of other substances more recently introduced, including hyoscyamus, senna, peppermint, &c.; and we would beg to ask whether Mr. Healey would have been able to speak confidently to the distinct and particular odour of the 'savine and rue,' had he not been made acquainted with the fact of these substances having been administered to the deceased, by one of the most extraordinary proceedings ever witnessed in any court; namely, putting the accused upon her oath, and taking her own evidence against herself!! (See report of the coroner's inquest.)

"The liver, spleen, and pancreas, were free from any thing remarkable: but we mistake, there was one remarkable circumstance,—the gall-bladder was about three parts filled with 'bile of a florid colour.' Such are the words in the original, '*bile of a* FLORID *colour!!*'

"Passing on to the urinary bladder, we find that it contained fluid which had a 'vegetable' smell, similar to that of the intestines; but here the odours, we presume, had become blended too much for separate discrimination, as they are not specified individually. On examining the meatus urinarius, Mr. Healey did not discover that any instrument had been passed to draw off the water. The only circumstance connected with which statement that requires comment, is the implied idea, that if a catheter *had* been so introduced, he could have ascertained the fact by examination after death.

"Of course, in such a case, particular attention was directed to the state of the genital organs. These were inflamed and excoriated, particularly the corpora '*myrtiformes*,' which we are informed are situated 'about half way up the vagina.' By far the most important point, however, and that on which the decision of the question mainly hinged, is the assertion that there were marks of various instruments to be seen about the os uteri. It is said there were 'two distinct dents,' as by a blunt, and 'five distinct punctures,' as by a sharp in-

strument; while, it is added, that, on pressing the latter, 'matter' exuded. Guided by these appearances, and the inferences he conceived to be deducible from them, Mr. Healey summed up by declaring his belief that the death of the deceased was caused, 'by administering savine, rue, and hyoscyamus,' and 'by the frequent attempts to perform an operation locally.'

"This brings us to the history of the trial, which may be given in very few words, the details being too voluminous, and not of sufficient interest for publication.

"Some doubts as to the absolute accuracy of Mr. Healey's opinions seem first to have suggested themselves to Mr. Brain, the surgeon to St. James's parish, and he thinking that a question, which affected the lives of two of his fellow-creatures ought not to be hastily decided, took means to make himself acquainted with the *natural* state of the parts at different periods of utero-gestation, and was thus led still farther to question the correctness of the doctrines laid down before the coroner. Dr. Robert Lee was also consulted, and he, on examining the parts distinctly, pointed out that the alleged 'punctures' were nothing more than the openings of the excretory ducts of the glands, presenting such, and only such appearances as are usually met with at this period of gestation. But what amounted to absolute demonstration of the correctness of this opinion, was the fact, that into the supposed 'punctures' several smaller mouths opened, being the apertures of various ducts discharging themselves at one common point: while the 'matter' which oozed out on pressure was only the gelatino-mucous secretion natural to the parts.

"On the trial, as may be supposed, Mr. Healey totally failed in substantiating the assertions he had made before the coroner; and so completely 'broke down' that it became obvious the cause was at an end, even if no other evidence had been in store. Neither Dr. Paris nor Mr. Jewell, who had been called for the prosecution, supported the original statements of Mr. Healey. As to the 'punctures,' the former thought it impossible to give a decided opinion upon the subject in the then state of the parts, while the latter was doubtful whether the appearances were the result of violence or not. The charge, therefore, of punctures having been made in the attempt to introduce a sharp instrument must have fallen to the ground, even without the positive evidence of Dr. Lee and Mr. Brain, which appeared to us, and what is of more importance, was deemed by the court, perfectly satisfactory against it.

"The charge of having administered certain drugs, with a view to induce abortion, might still have attached to the female prisoner had not the fact of their administration been got at by the extraordinary proceeding above-mentioned—that of making her criminate herself.

"With the collateral evidence we meddle not, nor do we offer an opinion as to the conduct of the parties accused; we limit ourselves to the medical part of the question.

"The coroner's jury were guided by the professional testimony adduced when they brought in their verdict; and when we come to examine the grounds of this testimony, we find them, not only insufficient to support the weighty inferences founded upon them, but such as actually appear to have had no existence except in the imagination of the witness. The natural openings of ducts are declared to be punctures from a sharp instrument; the fullness of the mamma, attendant on impregnation, is held to be the consequence of powerful medicines; and though least in importance, assuredly not last in absurdity, the gall-bladder is asserted to have been filled with 'florid bile.' And yet for this report, the coroner's jury presented the witness with a vote of thanks! A most unfortunate vote; an enduring evidence of their own incapacity, and fixing attention upon a document which, for its presumption and folly, stands without a parallel in the records of medical jurisprudence.

"The recent case of Mr. Neale, and the present, point clearly to the insufficiency of the state of the law as regards the coroner's inquest. No man can conduct the necessary investigation who does not understand the legitimate in-

ferences to be drawn from the appearances presented by the dead body: any man possessing such information would have at once detected the fallacy of the evidence in both the instances alluded to. But these cases do more—they clearly point out the necessity of examining competent witnesses.

"The former instance showed the inadequacy of the most perfect acquaintance with one branch of medical science—anatomy, to enable the surgeon to draw correct inferences from what he saw; the present shows still more forcibly the danger of a jury trusting to the evidence of one bold enough to give a decided opinion upon a subject of which the result has proved that he was wholly incompetent to judge.

"In common with other men, we view with horror the offence of which the parties were accused; and assuredly our voice

'Was ne'er employed
To clear the guilty, or to varnish crime."

But, as in two recent instances, attempts have been made on the evidence of medical men to establish charges of violence where the appearances they have themselves described warranted no such inferences, we have felt it to be a public duty to animadvert upon their conduct. In the latter case, had the evidence leant to the side of mercy—had the consciousness of ignorance led to diffidence in drawing conclusions—we should have thrown a veil over its absurdity; but when ignorance is united to rashness, and leads to positive testimony, involving the lives of others, it forms a combination too dangerous to be left to its consequences unchecked by the salutary caution which public exposure never fails to inspire."

—

71. *Two Cases in which the External Application of Corrosive Sublimate proved fatal.* By JOHN WARD, Esq.—Case I. A man, aged twenty-four, rubbed over every part of his body *one ounce* of corrosive sublimate, mixed with six ounces of hogs lard, and then took a large dose of sulphur and treacle, for the cure of an eruption resembling itch. At ten o'clock, March 13, 1828, about one hour after using this ointment he was seized with most excruciating pain all over the body, more especially about the abdomen, on which part and the thighs he had rubbed the largest quantity; and he felt as if he were "roasting alive." Unable to lie in bed, he arose and went out to a hay-loft, taking with him a gallon of water, his thirst being insatiable. In the morning Mr. Ward was sent for, and found the patient with the whole of the parts over which the ointment had been rubbed, in a state of complete vesication; the penis and testes swollen to an enormous size; agonizing pain in the stomach and bowels, distressing nausea, great thirst; tongue coated with white fur; pulse 110, and full. He was ordered barley water, &c. for drink, twenty leeches to epigastrium, and infusion of senna and sulph. magnes.

March 15th.—Great restlessness, severe tormina, and frequent bloody stools, passes urine freely, ptyalism commencing.

16th.—Complete state of salivation, severe head-ache, "torments in his belly." Has had no rest, blood oozing from his mouth and nose; frequent discharges of blood per anum; pulse 90, and feeble.

19th.—Has thrown up a large quantity of blood from the stomach; stools and urine passed involuntarily; severe hiccough; does not speak unless roused, but, when asked, says that "all his pains have left him." No delirium from the commencement. He lingered till the 24th, when he died; examination of his body not permitted.

Case II. A brother of the preceding, aged nineteen, also rubbed in an ounce of corrosive sublimate in hogs lard; his history is the same except that after getting up, and accompanying his brother into the farm yard, he lay down in a stream of water, where he remained all night, drinking at intervals considerable quantities. In the morning he was unable to move.

March 14th.—Symptoms much the same as his brother's, but more aggravated; pulse 130, full—unable to pass urine. Ordered v. s. ℥xviij.; ol. ricini. ℥i.

In the evening, no urine having been passed for thirty-six hours, a catheter was introduced into the bladder, but no water was drawn off. Ordered fifteen leeches to the epigastrium.

15*th.*—Worse than his brother; bowels open; constantly vomiting; headache; has voided no urine; other symptoms same as his brother.

16*th.*—He appears much more comfortable to-day. Has slept three or four hours. The vomiting has nearly ceased, and he has been able to retain a basinful of weak broth. Pulse 104, and feeble. Tongue dry and black. Ptyalism not so great as his brother's. Complains of excessive pain in his bowels. Has voided no urine, neither does any follow the introduction of the catheter.

17*th.*—Great anxiety of countenance; he says that he is perfectly free from pain; makes no water; has frequently bloody stools; drinks plentifully of weak broths, arrow root, &c. Has not vomited since yesterday afternoon. Pulse 96, and weak; tongue black and much swollen; has fainted two or three times, and but very slowly recovers from this state. Is very irritable, and says he is dying. The sores about the groin are sloughing extensively, and mortification is evidently going on internally.

18*th.*—He died about two o'clock, P. M.

Post Mortem Examination.—Appearances in the abdomen:—The stomach was found highly inflamed, with small spots of ulceration in several places. The small intestines were greatly inflamed throughout their whole course, and the lower portion of the colon and rectum in a state of complete mortification. The liver was large and unusually loaded with blood. The bladder was healthy in appearance, but contracted to a very small size, and did not contain the least drop of urine. There was a great quantity of bloody serum in the cavity of the abdomen. This examination took place eight hours after death, and no other parts were examined.

Thirty large worms were found alive in the stomach and large intestines. Mr. Brodie and some others are of opinion, that bleeding, in cases of poisoning, seems generally to promote the absorption of the poison. Mr. Ward thinks that this opinion is in some measure borne out in this case.—*Lond. Med. Gaz. April*, 1829.

CHEMISTRY.

72. *Supposed Artificial Diamonds.*—M. Thenard gave an account of the experiments made by himself, MM. Dumas and Cagniard de la Tour, to verify the trials by which the latter thought he had obtained the power of crystallizing carbon, and forming diamond. An accurate analysis of these crystals, which had no colour, proved, however, that they were only silicates, and not artificial diamond.—*Annales de Chimie*, 1829.

—

73. *Preparation of Hydriodic Acid.*—Dissolve sixty grains of iodine in a sufficient quantity of alcohol; diffuse one ounce of finely divided starch through four ounces of water, and add this, drop by drop, to the former solution; allow the iodine of starch to settle, and pour off the clear liquid. Pass a current of sulphuretted hydrogen through the deposit; the colour will at first change to orange yellow, from the formation of an iodide of sulphur, then it will become yellow, and ultimately white. The whole is to be filtered, the insoluble part washed with small quantities of water, and the solution slightly heated to dissipate the sulphuretted hydrogen. The solution may be obtained of specific gravity 1.5, and is pure hydriodic acid.—*Brand's Archives.*

—

74. *Preparation of Iodine.* By M. Souberan.—The following is the process recommended by M. Souberan, by which he has obtained as much as the eightieth part of iodine from mother liquors, that would yield none by the or-

dinary process. The mother liquors from the soda works, are to be diluted with four or five times their weight of water, and solution of sulphate of copper added, until precipitation ceases. The deposit will consist of iodide of copper and sulphate of lime, and is to be separated. Large iron filings or turnings are then to be put into the liquid and agitated, until all smell of iodine has disappeared, by which process, the remaining portion of iodine will separate as an iodide of copper, mixed with metallic copper and the iron turnings, but easily separated by washing over. These two precipitates are then to be acted upon separately, in one of the following ways:—1, the iodide is to be mixed with two or three times its weight of peroxide of manganese, and a sufficient quantity of concentrated sulphuric acid, and then distilled, when all the iodine will rise with some aqueous vapour; or 2, the mixture of iodide and oxide of manganese is to be heated in a retort to a high temperature, when pure iodine will come over, the residue is pulverulent, and can easily be extracted without breaking the vessel.—*Annales des Mines, Vol. III.*

—

75. *Phosphoric Acid in Potash.*—"According to M. Kobell, phosphoric acid is found in nearly all potash, in crude tartar, and in the ashes of most plants. It may usually be found in potash by saturating the alkali with muriatic acid, evaporating and crystallizing, redissolving the crystals, adding ammonia to the solution, and then muriate of lime. A precipitate forms more or less slowly, which has the characters of phosphate of lime before the blow-pipe, and moistened by sulphuric acid, communicates a green colour to the flame of a spirit lamp."—*Kastner's Archives.*

—

76. *Nitrate of Silver as a test for Animal Matter.*—"Dr. Davy states that nitrate of silver, dissolved in pure water, is not altered by the sun's rays. If the minutest quantity of vegetable or animal matter is present, the solution is discoloured; and with common distilled water, the discoloration is strong. To prove that the causes of the change of colour is the one assigned, it is sufficient to allow the coloured matter to subside, decant the colourless solution, and expose it again to sunshine. However powerful the sun's rays are, no further effect is produced; but, add more common distilled water, and the phenomenon will instantly reappear. He believes nitrate of silver thus used, is one of the best tests of the presence in water of very minute portions of vegetable matter: of course any chloride of silver that may be formed in consequence of the presence of any muriates should be allowed to subside in the dark, and the subsidence should be complete before the fluid is decanted and exposed to light."—*Jameson's Journal.*

MISCELLANEOUS.

77. *Yellow Fever.*—This disease, for some time past, has been the subject of most animated discussion in France. The dispute of its contagious or non-contagious character, now happily settled in this country, is maintained with all the vigour it formerly excited amongst our predecessors. Every circle is occupied with it. It is talked of in the saloons, canvassed by sage politicians as an affair of state, and battled over by learned professors with a vehemence not only destructive of professional gravity, but, it is to be feared, prostrating the love of truth, in the feelings of a personal contest; while the press has been busily occupied in the affair, sending forth numerous works, from heavy tomes to fugitive essays. The principal field of controversy, has been the Royal Academy of Medicine. No question has probably elicited in that truly eminent and illustrious body of medical philosophers, a higher degree of interest, or a more prolonged and lively debate.

The author of this discussion is Dr. Chervin, held in honourable and estima-

ble recollection, by those of his professional brethren of this country, who became acquainted with him during his tour of observation and investigation through the Atlantic cities of the United States, some years past.

In France, as in this country, when Yellow Fever first attracted attention in 1793, the popular belief and medical opinion, were almost unanimous in regarding the disease as eminently contagious. Dr. Deveze, who possesses the merit of having first opposed this error in the United States, it is true, had in France, equally resisted its propagation. In this country, the opportunities of observing and examining the nature of the disease, presented by its frequent recurrence, produced an early conviction of the correctness of his views. The truth once developed, soon enlisted numerous advocates, and nearly all who subsequently entered the profession, coming fresh to the examination of the question, with unbiassed minds and free from preconceived theories, decided from the weight of accumulated testimony and more enlightened observation, against the contagionists.

No great truth has ever been established by individual conversions. Those who are educated in a belief, or early adopt an opinion, generally die in the faith. It is by generations that truth and correct knowledge progress. A novelty advanced reservedly in one generation, and met with violent opposition, with denunciations and persecutions, is an acknowledged and established principle in the next.

Such precisely is the history of the doctrine of the non-contagion of Yellow Fever. In 1793, the profession were almost unanimous in the belief of its contagious character, and no little courage was required to brave the storm an opposite opinion would have awakened. In this generation, an equal unanimity prevails in the profession as to the non-contagious nature of the disease; and he who advances the opposite doctrine seriously, is deemed no more worthy of notice, much less a refutation, than would be an advocate, at this time, of the Ptolemaic system.

In France, where the disease is unknown, and, as respects the great portion of the country, from the absence of the essential requisites for its production, it cannot prevail; the force of authority and established opinion, unopposed by absolute observation, continued to predominate, notwithstanding the publications of M. Deveze. The question which had thus been put in controversy in France, Dr. Chervin undertook to investigate thoroughly. It had then excited new attention and interest by the great political movement of which it was a cover, in being employed to mask the concentration of a large force on the frontiers of Spain, intended for its invasion and the overthrow of its consitutional government, under the pretext of a "cordon sanitaire," to prevent the introduction of the contagion and the disease of Yellow Fever into France.

The mode of investigation adopted by Dr. Chervin, was the only one adapted to settle this controverted point irrefragibly, and is an evidence of the zeal and enthusiasm animating him in the search of truth. Dr. C. did not content himself with framing speculations in his closet, founded on the statements furnished by others: he determined to see, to hear, to examine for himself; nothing was received implicitly, whatever its authority; every thing was sifted to the bottom, and all that was false, that was mere popular credulity and idle rumour, was separated from the true, from sound observation and positive fact. To this research Dr. Chervin devoted five or six years, in the course of which he visited the principal of the West India Islands; he traversed the Atlantic border of this country, from New Orleans to Maine; he repaired to Guiana; on his return to Europe, he made Spain the seat of his enterprise and perquisition in two different tours, and was lately at Gibraltar. Abundant opportunities were enjoyed by him of witnessing the disease in its epidemic ravages, and in its sporadic and endemic occurrence. He studied the disease in its victims while living; and he interrogated their remains when dead, to determine its pathological nature. He examined, and inspected himself, all the localities where it had commenced its course, or had prevailed, in order to determine its origin,

and its mode of production; he scrutinized all the tales and rumours invented by an excited imagination, or founded on occurrences distorted by alarm, credulity, and obstinate and blinded prejudices.

In addition to his own researches and scrutation, he invoked the aid of the members of the profession, in each place the seat of his examination; he solicited and obtained from them their opinions as to the contagious or non-contagious character of the disease, accompanied with the facts on which these opinions were formed. The documents thus procured were verified by the official seals and signatures of the local authorities, and the French consul, where one was resident. Dr. Chervin, in this manner has not only presented the results of his own researches, but he has polled the medical profession, wherever yellow fever has prevailed, for their sentiments on this point. In the West Indies, and in this country, where the profession are untrammelled in their opinions by government, a degree of unanimity was found to prevail, unexampled on any question of science, arts, religion or morals, the subject of debate. So far as the opinion of those the most conversant with the disease, and the best entitled to decide the question, from possessing the best opportunities of determining the exactitude of facts, may be considered as settling this question, it is put to rest; and the vulgar opinion will in the end, as it always does, though with slownesss, be modelled after that of the intelligent and philosophic.

The visit of Dr. Chervin to this city is fresh in our recollections; the most favourable impressions were made by his courteous deportment, and he has left behind him "golden opinions." The zeal, fidelity, impartiality, diligence, and candour, with which he executed, while with us, the duties of his voluntary mission, are the sure guarantees of his ability for its performance, and of the entire faith that may be reposed in the results of his labours.

The work of Dr. Chervin on the Yellow Fever, which must necessarily be very voluminous, has not yet issued from the press, but when it does appear, we have no hesitation in believing it will prove decisive as to the great question which has so long agitated the medical public.

In the meantime Dr. Chervin submitted to the Academy of Sciences a memoir, containing a summary of his numerous researches on Yellow Fever, with the documents he had collected, which was offered in competition for the prize of medicine, founded by M. de Monthyon. On the favourable report of the committee appointed to examine the essays, the Academy decreed to Dr. Chervin a prize of ten thousand francs. It was not intended to express by this vote a positive opinion on the subject of the contagious or non-contagious nature of the disease: it was offered as a testimony of the approbation of that body to the zealous and laborious investigation of Dr. Chervin, indefatigably sustained in so many regions, and for so many years. That this reward was well deserved none but the prejudiced would deny; yet, those who were the advocates of the contagiousness of Yellow Fever, endeavoured by every possible means to prevent the accordance by the Academy of this approbatory testimony. Their efforts, to the honour of that illustrious body failed, and have only served to render the triumph of Dr. Chervin more signal and gratifying.

In the number of the *Bulletin des Sciences Médicales*, for October, 1828, a list of the various publications this controversy has called forth, and a very clear and condensed compendium of the arguments and statements of both parties, has been presented by M. de Fermon, drawn up with great ability. If the question were not so completely at rest on this side the Atlantic as no longer to awaken interest, we should be tempted to translate this article for the benefit of our readers, as exhibiting in a brief space and lucid manner the principal points of the controvery.

There is, however, a passage we cannot pass by, as it contains the true hygienic proceedings for arresting the progress of Yellow Fever, on its appearance in our cities, and preventing it from assuming the character of an epidemic. It is a thousand times worth all the quarantine regulations maintained at so heavy an expense, and to the injury of our commerce. We attach the more

importance to this recommendation, as we are thoroughly persuaded, from the observations we have been able to make on this subject, that the poison productive of Yellow Fever is seldom extensively generated, or widely diffused. Its source is often extremely limited, and the disease is contracted by an approach to its seat of origin, and not by the conveyance of the infection to a distance. When the point of infection happens to be in a populous district, or a situation of great resort for commercial, or other objects, many hundreds are exposed in the course of a few days to the miasmatic poison, are attacked in rapid succession in different quarters of a city, and the appearance of an extended epidemic is, thus, given to a disease of very limited range.

"When an infectious disease exists, the place that is its focus should be evacuated, and the infected spot should be surrounded, at a certain distance, by a cordon, which would, then, be really protective of health, (sanitaire,) whose object would be to prevent individuals from entering the unhealthy situation, and not to enclose in it those who have contracted there the disease with which they are attacked, aggravating their position by forcibly retaining them in the midst of miasms, and exposing them to all the influence of deleterious causes, until finally the sick succumb, or, by the force of their constitutions, triumph over these fatal precautions."

As connected with this subject, the following extract of a letter from an American gentleman in Gibraltar to a friend in this city, giving an account of the late epidemic in the former place, may be considered as interesting. The author is a gentleman of great intelligence and respectability, and, though not a physician, every confidence may be placed in the accuracy of his facts, as from the station he holds, he has peculiar facilities for obtaining information; and having no theory to support, and probably no very strong preconceived notions on the subject of Yellow Fever; there is no reason to believe that he has seen things as he wished them to be, and not as they were.

"The Yellow Fever has just left us; for three weeks preceding Christmas day it declined daily, but still there were cases reported, and we began to fear it would never cease: on that night the wind set in from north west, the thermometer fell from 64° to 50°, and cut the disease short off—not another case. Dr. Pym, whose name you know, arrived from England, and took the medical command; he is now employed in routing out the filth and dirt from all the rookeries in the town; cleansing, purifying, &c. &c.: he has shut the gates hermetrically against the admission of all us fugitives, and does not, we understand, mean to admit us to our residences until twenty days after the last case —a most prudent measure in all respects.

"The weather is cold, and in all respects seasonable.

"I shall hereafter collect all that may have been said, thought, or written on the subject of this fever, and send it to you. The old dispute of *contagion*, *non-contagion*, *import*, and *generation*, is carried on here with the usual asperity: there is no doubt with myself that it was generated in the place, and is what the Spaniards call 'uno higo dela placa.' The manner in which it has been treated by the English practitioners, also is strongly reprobated by the Spanish and other foreign physicians; the English invariably attacked the disease with doses of three or five grains of calomel every two hours; the Spaniards commenced by giving half, (or more,) of a tumbler of olive oil, followed in half an hour by rather a smaller quantity of the same rendered emetic by quantities of warm water; as soon as it commenced working downwards a very free use of injections was resorted to, and the stomach completely emptied; then followed large doses of castor oil, sometimes a dose of compound jalap; leeches invariably applied to the head and lower part of the belly; and in some cases the pains in the spine relieved by leeches on that part *low down*. It appears that whenever the disease was attacked in its first stages by these remedies the patient invariably recovered; but *good nursing* was considered absolutely necessary; and in some instances from eight to ten days elapsed before the patient was allowed to take any thing solid; chicken soup, barley water, and beef tea, being their

only sustenance; many were lost by indulging too early; relapses in most cases proved fatal. Thousands of the poor were treated according to this system without any medical advice, and recovered; and what is remarkable that not one of these had the fatal symptom of retention of urine, or an entire want of secretion.

"Those who were treated with calomel died in the proportion of one to five, so that amongst us *quacks* there is the greatest possible prejudice against its use. The Spaniards say the disease is an *inflammation of the intestines*, that they must be emptied and cooled with diluents, and that calomel adds fire to fuel; they say that the disease is more rapid than the effects of calomel, and that if ever you sustain life until the patient is salivated, it does no good, as it is quite probable they would have done as well without it. It is also remarkable that those patients who were treated with calomel, convalesced very slowly—particularly the military—whilst those who were under the oil system got well much sooner; it was most fatal to persons between the ages of twenty-five to forty-five; fewer females died than males; children got over it very easily, and pregnant women generally escaped the infection. Many families shut themselves up in their houses, and held no communication; two or three houses escaped, full of inhabitants; other houses, with but three or four inmates, though well ventilated, and not joined by other buildings, had the infection. It may be well to remark to you, that there has not been a solitary instance of any person having taken the fever, who had it in former years; so great is the confidence of people upon this point, that several of my acquaintances who were absent in England and elsewhere, returned during its greatest malignity, entered the town, and pursued their usual avocations. I knew of several young men who ran away when it was declared, uncertain whether they had the disease in 1804, 1813, and 1814; these wrote to their friends abroad to ascertain whether they had it in infancy, and upon being assured they had, all returned to the town. I have five clerks, all of whom had, what is technically called 'passed the fever,' in former years, who all remained, and were employed nursing the sick; not one of either of those classes had an attack. On this isthmus, under canvass, and in huts or houses, there are at this moment about ten thousand persons; the distance from where I live to the entrance of the town is about half a mile; the advanced line of the military encampment is not one-fourth of a mile from the gate; the communication was uninterrupted during the whole period. Detachments of the regiments were daily detailed for town or garrison duty; there is scarcely a soldier who went into the gates who did not take the fever; in some instances, the disease did not manifest itself for ten or twelve days, others in twenty-four hours, but most generally in four or five days; yet, notwithstanding all this intercourse, there is not an instance of any person falling sick who could not be traced to an absolute visit to the town, a proof, (I say,) that it is not a contagious disease, and only infectious in infected air. If, therefore, it could not be brought half a mile, how is it possible to carry and propagate it across the Atlantic?"

—

78. *Small-Pox.*—Dr. George Gregory presents us, in a very interesting paper in the *London Medical Gazette*, for February, 1829, with the experience of the Small-pox Hospital, during the year 1828.

One hundred and ninety-three patients were admitted with small-pox, or some of its modifications, during the year. Of these, seventy-one had undergone regular vaccination, leaving a cognizable and for the most part good cicatrix. Of the remaining one hundred and twenty-two who were unprotected, fifteen had been "cut for the cow-pox ineffectually," and one hundred and seven took the disorder without having submitted to any kind of preparatory process. None were admitted subsequent to variolous inoculation. The total number of deaths was sixty-six, rather more than thirty-three per cent. Of the one hundred and twenty-two unprotected cases, sixty-three died and fifty-nine recovered, being a mortality of above fifty-one per cent. Of the seventy-one who had undergone

vaccination, three only died, and sixty-eight recovered, being a mortality of only a little more than four per cent.

The few deaths that have occurred among those who suffered under small-pox, after undergoing vaccination, may lead some to suppose that the fatality of small-pox has diminished. Such, however, is not the fact. In 1794 the rate of mortality in the hospital was thirty-five per cent.; in 1795, thirty-one per cent. —average of the two years, thirty-one. In 1828, as we have already stated, with seventy-one admissions subsequent to vaccination, the rate of mortality was no less than thirty-three per cent. and if we consider only those who were unprotected by vaccination, fifty-one per cent.

But it is not only lessening the mortality that vaccination has shown its beneficial influence, it has also shortened the amount of suffering. The duration of each patient in the hospital shows pretty correctly the severity of the complaint, for, with few exceptions, they were all admitted on the second, or, at the farthest, on the third day of the eruption; nor were they discharged until perfectly restored to health. Thirty-seven patients having small-pox after vaccination, were discharged cured, having been in the hospital less than twelve days. Eleven of these were less than eight days in hospital. Forty-seven out of sixty-eight were discharged cured within a fortnight from admission. Eight only remained in the hospital upwards of three weeks. On comparing this with the experience of the hospital prior to the days of vaccination, it appears, that in 1794, out of two hundred and thirteen patients three only were discharged within a fortnight from the date of admission, viz. one on the fourteenth, and two on the thirteenth day; and in 1795, out of one hundred and eighty patients two only were so discharged, viz. one on the tenth and one on the twelfth day after admission. By far the larger proportion of the discharged cases remained upwards of three weeks and many several months.

Dr. Gregory endeavours to explain the fact of the average rate of mortality by small-pox not having diminished since the discovery of vaccination, by supposing that the *modified* cases have taken the place of the *natural distinct*, and he says, "it will be found that the latter, formerly so common, is now become a very rare form of the disorder, insomuch that, for the last two months, not one case bearing that character has been admitted into hospital."

"We may generalise," he adds, "one step further, and lay it down as a great general law, that there are certain constitutions which are naturally *patient* under the influence of the variolous poison. Prior to the discovery of vaccination, these must of course have been far more numerous than at present. In consequence of the disuse of inoculation, and the fewer foci of the poison now to be met with, the disease fastens itself at present chiefly upon those whose constitutions are predisposed by weakness, or some less cognizable circumstance—whose systems are exceedingly irritable under the operation of the poison, and who therefore suffer severely from it. Hence the greater number of confluent and semi-confluent cases in the practice of the present day among the unprotected part of the community; while the proportion of mild and recoverable cases is kept up by *vaccination*.

"If I have reasoned rightly on the phenomena before me, the following may be looked upon as a correct statement of the influence of vaccination upon the human body. Those persons whose constitutions are naturally patient under the influence of the variolous poison, and who, prior to the discovery of vaccination, would have had the mild or distinct kind of small-pox, are by vaccination rendered perfectly secure from the attacks of small-pox. Those again whose constitutions are naturally *irritable* under the variolous poison, and who would formerly have suffered severely from it, even by inoculation, are now, by vaccination, rendered in a great degree secure from its mortal effects. The few who do fall victims to small pox after vaccination, are those whose constitutions are so peculiarly susceptible and irritable as to bid defiance to any kind of medical treatment, whether prior to, or during the attack."

79. *Report of the Council of Health of the City of Paris, for the year* 1827.—The bill of mortality formed with much care in the offices of the third division, a classification of the deaths being made according to their several causes, presents an exact view of the mortality in each of the arrondissements and quarters in the city at large, as well as various hospitals and infirmaries situated within its limits. To render the calculations relative to the influence of local causes upon the mortality more exact, an attempt has been made, for the first time, to separate from the table all the deaths of individuals, which, arriving sick at Paris, or only having inhabited it for a few days, had not been subjected to the influence of these causes. For the first time, also, a view is exhibited of the deaths from phthisis pulmonalis in each of the wards or quarters. As pulmonary catarrh, notwithstanding its attendance upon a much more advanced age, appears, nevertheless, in the progress of its symptoms, to confound itself with phthisis, we think it will likewise be useful to present a view of it as it occurs in each quarter, in order to ascertain if possible, whether its existence, like what we suppose to be the case in phthisis pulmonalis, is not owing to local causes, among which place of dwelling or locality, (l'habitation,) appears to be the principal.

We refrain from drawing any inductions from this first calculation of the deaths occasioned by pulmonary consumption, since, notwithstanding the remarkable differences it presents in one quarter from another in the same arrondissement, and in the twelve, we think that this investigation should be continued for a series of years, previous to deciding upon the probable causes why this disease, so common in cities and so rare in the country, commits its ravages more in one quarter than another.

In classifying diseases according to the order in which they have been most frequently fatal, we still find phthisis pulmonalis in the first rank. The deaths by this disease are 1086 males and 1444 females. Most of these victims have perished, the females between the ages of fifteen and forty-five years, the males between the years of twenty and thirty-five. Pulmonary catarrh, which may be regarded in some measure as the phthisis of old age, has caused the death of 855 men and 1027 women; its ravages are most frequent from the fortieth to the ninetieth year. Gastritis has swept away 838 males and 993 females, most of whom perished in the three first months of life, or during the first and second years. The same observation may apply to enteritis, which carried off 1018 males and 1033 females. Peritonitis has proved fatal to 129 men and 421 women; it has been particularly destructive from the age of fifteen years and upwards among the male sex, and between the years of fifteen and forty-five among females. 191 males and 197 females died from inflammation of the brain, the greatest number in the three first months of life and between the years of fifteen and seventy. Inflammation of the lungs has destroyed 869 males with an equal number of females, of the age of fifteen and upwards, but more particularly in the three first months of infancy. Of apoplexy there died 512 men and 403 women, between the years of thirty-five and eighty. Of cancer and scirrhus 107 men and 417 women fell victims, the males from the age of forty, and the females from the age of twenty upwards. There died of aneurism of the heart 220 males and 393 females, from the age of twenty upwards. Fevers considered in the order of their mortality, present themselves as follows:—Cerebral fever has swept away 293 individuals of the male and 252 of the female sex, showing its greatest mortality in the period of infancy and youth; there have died of the fever called putrid 87 men and 93 women; of that styled *malignant* 84 males and 74 females of the age of ten years and upwards; and of the fever denominated *bilious*, 60 men and 38 women.

Among children, convulsions have proved fatal to 756 boys and 736 girls, the greatest number in the three first months of life, and from the first to the second year; dentition, 108 boys and 114 girls; hooping cough, 54 boys and 64 girls; croup, 85 boys and 86 girls; small-pox, 97 boys and 63 girls; measles, 47 boys and 39 girls. Of still-born and premature births, there were 799 males and

655 females, whilst the amount of such as died from weakness, from the period of birth to the third month was 339 boys and 332 girls.

This concise view of the chief causes of mortality during the past year, (1827,) shows us in the first rank phthisis, pulmonary catarrh, gastritis and enteritis. These diseases have in fact produced alone more than two-fifths of the deaths. With regard to phthisis and pulmonary catarrh, we repeat that most of their victims have been females, in so remarkable a proportion as to exceed a fourth more. What is the cause of this difference? May it not be attributed to the more sedentary life of women, which renders them more liable to the influence of local causes, and more particularly to that which cohabitation exercises upon the economy.

The frequent occurrence of peritonitis among women, is sufficiently explained by the nature of the functions associated with the uterine system, and the influence which these exert in the production of that disease. Being subject to a sanguineous evacuation easily deranged, to a sedentary life, and a higher degree of moral susceptibility, and especially to more frequent causes of sorrow, may afford some explanation why organic diseases of the heart are more common among women than men; but from whence arises their greater liability to cancerous affections? Certainly, if these disorders depend upon a virus, there can be no reason why they should be less common among men. This difference, it appears to us, proceeds in some degree from the neglect arising out of a false modesty, by which means the treatment of the disease is only attempted during the chronic stages; for inflammations of the maternal organs, when neglected, produce at length that degeneration of the tissues which characterizes scirrhus and cancer.

The number of children which have died of convulsions is still very great, although not so many victims have fallen as during the year 1826. We cannot too often repeat, that convulsions are only the symptoms of a cerebral irritation, almost always consecutive to irritations of the digestive organs, so frequent in the first months, and during the period of first dentition. It is especially in seeking to prevent and combat the affection of the digestive passages, which will lead to a diminution of the frequency of convulsions; and in this double light, we cannot too strongly recommend the frequent use of bathing, emollient cataplasms, mucilaginous drinks, &c.—*Recueil Industrie, etc. Nov.* 1828.

—

80. *On Feigned Diseases of the Heart.* By Dr. Quarrier.—A man, named Chapman, became notorious in the Royal Marine Artillery for possessing powders capable of producing symptoms so closely resembling those of diseased heart, as to deceive the medical attendants, and lead to the men procuring exemption from duty. These powders, it appears, consisted chiefly of the helleborus albus; and the drug was actually administered in the immense doses of one drachm or more, when it was intended to produce a very decided effect.—*Provincial Medical Gazette.*

—

81. *Phrenology.*—Dr. Elliotson related, at a meeting of the London Phrenological Society, the following case of a young lady under his care, who is diseased mentally in reference to cleanliness. This patient "suffers the greatest anxiety lest any dirt should touch her, or any dust get upon her. If she treads upon any thing in the street that is in the form of dirt, she stands and examines it, and, after looking at it for some time, heaves a sigh and goes on. Sometimes she stops so long that a crowd collects, a coach is called, and she is carried away. When any person enters the room, she rises and tries whether the door is fast, lest any wind should blow dust in upon her. On being asked whether she felt any pain in her head, she replied 'yes,' and put her fingers upon the organ of cautiousness."—*Lond. Med. and Surg. Journ. June,* 1829.

AMERICAN INTELLIGENCE.

Mercury detected in Swaim's Panacea by Chemical Analysis. By R. HARE, M. D. Professor of Chemistry in the University of Pennsylvania. (Communicated in a letter to Dr. HAYS.)—In February, 1827, I procured from the shop of Mr. Peter Lehman, druggist, sign of the Golden Lion, High street, a bottle of Swaim's Panacea, for the purpose of testing it for certain active metallic preparations which it was supposed to contain. Upon examination I found it to be clogged with so large a proportion of syrupy matter, that I considered it an object to get rid of this matter before prosecuting my examination. I therefore diluted about two-thirds of a bottle of the panacea with about two gallons of water, and added some yeast in order to induce fermentation.

Other subjects having absorbed my attention subsequently, the liquid remained covered up in the glass vessel into which I had introduced it, until nearly a year had elapsed. I then transferred the whole of the liquor, then much attenuated by fermentation, and the matter which had subsided from it, into a flat stoneware vessel, and placed it in my evaporating oven. From this situation this vessel was not removed, until the contents had been converted into a dry, blackish, porous crust. Of this crust the greater part was subsequently removed from the evaporating vessel, and being rolled up in paper was placed upon a shelf. Towards the close of the last summer, I happened to examine the crust attentively, when I observed on it some globules of metallic mercury. On further examination with the aid of a lens, I discovered it to be so replete with mercurial globules, that whenever any fresh portions of the crust were opened by means of a knife, more of them were observable. The crust was subsequently shown to Dr. Physick, Dr. Horner, and other intelligent friends, and it has been preserved in a bottle. I should have communicated these results to the public sooner, had I not been in hopes to have repeated the examination by another process; but not having as yet found it convenient to realize that intention, and as you deem it of importance that the facts which I have mentioned should be published, I send this statement to you for the American Journal.

[Our talented collaborator has conferred a valuable benefit upon the public by the evidence above afforded by him, that mercury enters into the composition of the nostrum sold under the name of "Swaim's Panacea," and added to his well-earned reputation by the ingenious method he has devised for detecting this metal. The only question now appears to be, in what state the mercury originally existed in the "Panacea." Its effects leave us in no doubt as to its being in the form of *corrosive sublimate*, the most active of the mercurial preparations, and one of the most violent of all poisons. In confirmation of this we may mention that when Swaim first commenced the manufacture of the "Panacea," he was in the habit of purchasing from Mr. Treichell, formerly an apothecary in this city, the corrosive sublimate in considerable quantities, made up in papers, each paper containing two grains of the sublimate. We state this fact upon the authority of Dr. Jackson, who had it from Mr. Treichell.]

Congenital Hydrocephalus, forming a Cyst on the back of the Head, containing the Posterior Lobes of the Cerebrum: Water evacuated by Puncture of the Brain. By W. E. HORNER, M. D. Adjunct Professor of Anatomy in the University of Pennsylvania.—Mrs. H., the wife of a shoemaker in this city, was delivered by Dr. Marsellis, July 29, 1829, at the full period of utero-gestation, of a female child. Nothing unusual had occurred during pregnancy, except that the mother

had a fall about a fortnight before her confinement. The child was about the size of an eight months one, and had, appended to the occipital region, a tumour larger than the head.

I saw it, for the first time, two or three days after its birth. The tumour was at that time twelve and a half inches in circumference, soft and fluctuating, of a spheroidal shape, and connected to the posterior fontanelle by a pedicle of an inch or more in diameter, which had a fibrous feel, and seemed to pass through the fontanelle from the interior of the cranium. The fontanelle was open about one inch, and was nearly square. There was just below this pedicle a small cyst, which contained half an ounce of fluid. The cranium was of little more than half the common size; the forehead very flat and receding; and the eyes and face projecting and large, as they commonly seem to be in ancephalous cases. The anterior fontanelle nearly closed. The occiput was also small, and very much flattened on its under surface. The pedicle of the tumour was covered by the common hairy scalp; over the remainder of the tumour the skin was bare, smooth, thinner at some places than at others, and where thinnest exhibiting the appearance of recent cicatrices. A soft fleshy mass, half the size of a common fist, was felt in the centre of the tumour, and this mass seemed to arise from the interior of the cranium. The tumour was somewhat excoriated at places, and had here and there thin scabs upon it; it was red and hotter than other parts of the child's body.

The child in its actions and general condition resembled other children of the same age; it sucked, cried, and threw its limbs about. Handling the tumour or squeezing it seemed to give pain. Its stomach and bowels were in good order.

Taking all the circumstances together, I immediately concluded this to be a case of congenital hydrocephalus, which had occurred in the lateral ventricles of the brain before the ossification of the cranium had much advanced, beginning perhaps about the fourth or fifth month of uterine life; and that the posterior parts of the hemispheres had been protruded backwards, and by the progress of the disease, and the natural growth of the head together, had been converted into cysts containing serum. That the character in short of the disease corresponded with spina bifida. I therefore determined to treat it by evacuating the water.

Accordingly I introduced for some days in succession several acupuncturation needles, and drew off at a time through the holes very gradually, two or more ounces of a thin straw-coloured serum, which, for the time, produced a diminution of the tumour, but it would again become plump in the twenty-four hours. The fluid at last became too thick to flow through such orifices, and I then resorted to my lancet, which was plunged in obliquely for half an inch on each side of the tumour, as there appeared to be two cysts. By such means I evacuated these cysts daily; on one occasion, after an intermission of forty-eight hours, I drew off nearly half a pint of serum.

While this process was occurring daily, the tumour was kept moistened with brandy and water as a refrigerant mixture; an inflammation in the meantime was evidently existing in it, being exhibited by the red vascular injection of its integuments, by its heat, and by its tenderness on pressure.

On the 10th of July the infant had a convulsion of some minutes, the next day it had another, and also for succeeding days; on the 14th it ceased to suck; that day and the next it had many convulsions, and became pale, with frothing at the mouth. It died on the 15th, at 5 o'clock, P. M. having lived seventeen days.

July 16th, 1829, *Autopsy sixteen hours after death.*—Weather warm. On exposing this tumour it turned out to be what I had supposed, a congenital hydrocephalus, which had forced the posterior lobes of the cerebrum out through the posterior fontanelle. The dura mater of the tumour was identified with its integuments; its pia mater was highly inflamed, injected, and adhered universally to the integument. Each posterior lobe was distended into a spherical sac containing purulent serum, and having its inner surface in a softened disor-

ganized state. The connexion of the sac of the left side, with the corresponding lateral ventricle, was traced by a probe and finger passed from one into the other. But on the right side the sac was insulated, the lateral ventricle of that side being closed by a universal adhesion of its contiguous surfaces.

The anterior and middle lobes of the cerebrum and the cerebellum were in situ, and were not inflamed; they were of the usual consistence of infants of that age; and they were connected to the dilated posterior lobes by a narrow isthmus passing through the posterior fontanelle. Pons and medulla oblongata healthy.

No other part than the head examined.

—

A Case of Prolapsus Uteri. By SAMUEL B. TOBY, M. D. of Providence, R. I. (Communicated in a letter to WILLIAM M. FAHNESTOCK, M. D.)—The following case of *prolapsus uteri*, as it differs in some of its symptoms from what is ordinarily observed, may not be deemed unworthy of record.

Mary ———, (a coloured woman,) aged thirty-five years, applied to me for relief in October, 1828. She described herself as labouring under a spasmodic cough, which uniformly increased upon lying down, so as to harrass her very much through the night; had a constant *pain in the left side*, and numbness of the thighs, occasionally, when standing at her work. She had leucorrhœa *slightly*, and at her monthly periods instead of a discharge of the catamenia, she *vomited blood* in small quantities, repeatedly, for three or four days, to the amount of about six ounces. During this period she was unable to pass her water, except by the aid of the catheter. These were her greatest difficulties, but she also complained of many nervous and hysterical feelings, that rendered her life a very uncomfortable one. On inquiry, I found that she had borne three children, and had been a widow two years. She did not know that there was any peculiar difficulty in her labours. She said she had been in this state of health about a year; had been subjected to a great variety of medical treatment from different practitioners to whom she applied in the country where she had lived, without deriving any benefit, on the contrary she was much depressed in spirits, and thought herself gradually growing worse. Among other medicines, she said she had taken emetics, every other day, for several weeks, and from all I could gather from her account, she had been pretty faithfully dosed with the whole catalogue of antispasmodics. From several of her symptoms, particularly the *fixed pain in her side*, I immediately suspected a prolapsus of the uterus as the cause of some of her difficulties at least, well remembering the minute instruction given by Professor Dewees on the diagnostics of this complaint. I told her of my suspicions, and inquired if this had never been suggested to her; she replied in the negative, and submitted to an examination per vaginam. I found the case as I anticipated, the uterus being situated within an inch and a half of the os externum.

I prescribed some slight pectoral medicine for her cough and directed the use of astringent injections for two weeks; at the expiration of which time, I introduced into the vagina a circular gum elastic pessary. She experienced *instantly* very great relief from the pain in her side, and in a few days it was entirely removed. Her cough and other difficulties rapidly diminished. At her next catamenial period she had no difficulty in passing her urine, and no vomiting of blood, but on the contrary a scanty menstrual discharge. In one month from this time she was quite well; her catamenia natural. She now left our town and I am informed she continues to enjoy good health, and has recently been married.

—

On Muriate of Lime in Paralysis of the Lower Extremities. By ALEXANDER SOMERVAIL, M. D. of Essex County, Virginia.—In the Philadelphia Journal of the Medical Sciences, for 1823, I related some cases to show the good effects of muriate of lime in palsy of the lower extremities from diseased vertebræ.

In the beginning of January, 1829, a young negro woman was much afflicted

in various ways; confined to bed, and, when obliged to get up, her knees gave way, so that she could not stand without help. On examining the spine nothing was perceived amiss; and her other complaints were so distressing as to command all my attention. About the 10th of February some relief was obtained, and she continued to recover from that time.

I considered these complaints as only concurring with the disease of the spine, and therefore not detailed.

March 6th.—Her former complaints are removed: she complains now of pain in the back, (which has existed from the beginning,) of pain in the left side, half way between the ileum and the ribs, and inability to stand; she can move her limbs in bed, and has no sensation of numbness; has no appetite, and much emaciated. On examination, the three lower dorsal vertebræ protrude, and are painful on pressure; the middle one most so, and that most prominent; this too is the place where the pain of the back, so long complained of, is situated.

A large blister was immediately applied; a little relief of the pain of the part followed. On the 9th she began the muriate of lime, of which twenty drops in water was taken every two hours, (eight times every day.)

This is prepared by saturating the muriatic acid with lime. She was obliged to lie in bed, and was directed to continue there.

17*th.*—No pain in the back while lying; side also easier.

24*th.*—Better; appetite increasing.

31*st.*—Free of pain; cannot stand.

April 9*th.*—Doing well.

16*th.*—Still better.

May 1*st.*—Left off her medicine; appetite good; no pain; regains flesh and strength; can walk a little, but feebly.

June 1*st.*—Has taken no medicine for a month; has recovered flesh so much, that the prominence of the vertebræ is not seen, but can be felt; no pain there on pressure; and she can now walk well, though not so freely as before.

Another case at a distance occurred on the 5th of March: this was a large negro man, upwards of thirty, who had been lingering since July, 1828, also complicated with other complaints. He walks with a stick badly; his legs benumbed; his knees give way, so that he was often in danger of falling while walking. One of the lower dorsal vertebræ painful on pressure, a little enlarged and prominent. He took the muriate of lime with other medicines, (emetics and cathartics,) thought necessary for his other complaints, which were soon removed; and by the 5th of April he was so much better, that it was thought the medicine left would be sufficient for his recovery. I have not heard from him since, nor seen him since the 5th of March.

—

A Case of Glossitis, attended with alarming symptoms of Suffocation, successfully removed by deep incisions made into the substance of the Tongue. Communicated by A. Hopton, M. D. of Clinton, North Carolina.—George Taylor, aged about fifty-two, of athletic habit, and very corpulent, is the subject of this case. After wading the river in a cold day in February, he was suddenly attacked with symptoms of glossitis, with pain and soreness in the throat, and impeded deglutition. The tongue, soon after, began to swell, and in a few hours become so enormously enlarged as to completely block up the fauces, and protrude at the mouth, which rendered his respiration extremely difficult and laborious, and deglutition painful, and nearly impracticable, together with a distressful sense of approaching suffocation.

I saw him a day or two subsequent to the attack, and found him precisely in the situation as above described. Venesection, both general and local, was immediately resorted to, not merely for the reduction of inflammatory excitement, but for the purpose also of relieving the more urgent symptoms, as well as local turgescence. This praxis was promptly followed by an active emetic, but the latter afforded little or no benefit, as it could not be swallowed in sufficient quantity to produce the desired effect. Blisters, scarifications, stimulat-

ing rubefacients, fomentations, and a farrago of other useless applications were employed, but the whole proved altogether abortive.

Hence the only alternative left me for a choice in this desperate case, was the operation of tracheotomy. This was proposed to the patient, but he strenuously opposed it; and although he had lost the power of speech, yet he gave me to understand by his peculiar gestures, that he would not calmly submit to such a hazardous project, as he conceived, of having his throat cut to preserve his life. What was now to be done? The most judicious therapia, so far as I was acquainted with, had been employed without producing the least benefit, and the case approaching rapidly to a fatal termination.

Under these embarrassing circumstances I was prompted to try the result of the following expedient, an expedient which might possibly be attended with success; should it fail, however, tracheotomy might then be resorted to with a prospect of relief. The expedient alluded to is this, I plunged a sharp-pointed scalpel deeply into the substance of the tongue, on each side of it, near its root, and cut it out laterally towards the tip, thus making two deep lateral incisions. I preferred making the incisions in the side rather than under the tongue, lest the sublingual arteries, or some of their important ramifications might be divided, and thereby produce an unnecessary hæmorrhage. The operation succeeded beyond my most sanguine expectations, for in less than an hour the patient was relieved from nearly all his distressful sufferings. There was a very copious discharge of dark grumous blood, followed by blood of a natural colour and quality. Nothing more in the therapeutic way was done for the patient; he was perfectly restored to health in a few days.

—

The Operation of Laryngotomy and Tracheotomy performed at the same time, and on the same subject for the removal of an extraneous body from the larynx. By Abner Hopton, M. D.—James Mac Intosh, a very sprightly and intelligent lad, aged perhaps about eight years, while engaged in planting corn, accidentally inhaled a grain of it into his trachea, and which instantly produced the most alarming symptoms of approaching suffocation. The extraneous body had become so firmly located within some part of the vocal avenue, that to remove it by any expedient, unless by an operation, was found by the failure of repeated trials, to be absolutely impracticable.

Laryngotomy was therefore promptly resorted to, as the only probable means of preserving the life of this unhappy little sufferer. I commenced the operation by making an incision in the integuments between the thyroid and cricoid cartilages, and then transfixed the crico-thyroid membrane with a sharp-pointed bistoury; so far the operation was exceedingly simple, and very readily accomplished; but unfortunately, I found that after several, though ineffectual attempts to remove the foreign body, that the aperture was entirely two small to afford it a passage, neither would it admit of the introduction of the necessary instruments whereby this object might be attained. Hence rather than enlarge the aperture, by cutting through the cricoid cartilage, and the isthmus of the thyroid gland, and thereby endanger a wound of the superior thyroid artery, and a consequent troublesome hæmorrhage, I preferred as a better expedient, and one by which all these difficulties might be avoided, to enlarge the incisions in the integuments, and open the trachea half an inch at least below the isthmus of the gland. This part of the operation was as simple as the first, and as easily executed; and I am happy to add that I succeeded without further embarrassment in removing the obstruction, and the speedy restoration of my patient to perfect health.

Remarks.—I am, from the preceding observations, convinced that it is not by any means an easy matter, and indeed not at all times practicable, to remove extraneous bodies from an aperture in the crico-thyroid membrane, owing to the minute perforation which the operator is necessarily compelled to make, unless he chooses to enlarge the opening by dividing the isthmus of the thyroid gland, and thereby encounter a troublesome and often dangerous hæmorrhage; an operation at all times hazardous, and not often effectual. On the contrary,

the operation on the trachea is attended with little danger, and is often successful. Hence, if this view of the subject be correct, and I presume it is, laryngotomy will answer probably, and indeed should be performed, in every instance where the intention is merely to inflate the lungs, as in case of suspended animation from drowning, &c.; but that tracheotomy should be preferred where the design is to remove foreign bodies from the trachea.

—

Of the Precipitation of Morphia from Laudanum by Ammonia; also of a Spontaneous Deposition of Narcotin. By R. Hare, M. D. Professor of Chemistry in the University of Pennsylvania.—I believe it is not generally known, that the addition of ammoniated alcohol to common laudanum will cause a crystalline precipitate of morphia in the course of a few hours. If the precipitate thus obtained be dissolved in acetic acid, again precipitated by ammonia, and afterwards collected and dried upon a filter, the morphia will be obtained nearly white, and may be rendered perfectly so by repeating the solution by acetic acid, and precipitation by ammonia. I have by these means obtained thirty grains of morphia from an ounce of opium.

Instead of alcohol impregnated with ammoniacal gas, a mixture in equal parts of strong aqua ammonia and common alcohol will answer.

Narcotin is I find sometimes spontaneously precipitated in a crystalline form from a solution of opium in proof spirit. The circumstances under which I procured it are nearly these. A quarter of a pound of opium was boiled in a quart of proof spirit, and strained while warm through a coarse cotton cloth. The solution thus obtained being allowed to stand for about twenty-four hours, crystals were observed to be spontaneously deposited on the sides of the containing glass jar. These being dissolved in acetic acid, on the addition of ammonia a precipitate took place, which was collected by a filter and dried. Narcotin was thus obtained in the form of beautiful white, silky crystals, which were readily soluble in sulphuric ether.

When we consider how often opium has been dissolved in proof spirit, by chemists and pharmacopists, it is surprising that crystalline principles, so easily evolved as are morphia and narcotin by the process above described, should have escaped observation till lately, when Sertuerner, by a much less obvious route, had the honour of discovering them.

—

Dissection of a Case of Peritoneal Dropsy. (Communicated by John D. Godman, M. D.)—A medical friend, who in practical knowledge is surpassed by few, but whose repugnance to appear as an author is insurmountable, placed the following notes of a dissection in my hands. The case is of considerable interest, and by no means very common; the correctness of the observations may be implicitly relied on.*

Examination of Mrs. H. aged forty-five, twenty-four hours after death.—On cutting through the abdominal muscles, we came to a large sac, which had contained thirty pints of water, extending from the ensiform cartilage to the crista of the ilii, and adhering anteriorly to the inferior edge of the symphysis pubis, bounded anteriorly by the abdominal muscles, posteriorly by the peritoneum; of the consistence of cartilage, and of about two lines in thickness.

In the cavity of the sac were found two medullary sarcomatous tumours: the one in the left hypochondriac region flat, about an inch thick, and three inches in its long diameter: the other, situated exactly on the symphysis of the pubes, was round and three inches in diameter.

By cutting through the posterior boundary of the sac, we arrived at the intestines, which were studded with innumerable small tumours, from the size of

* The same gentleman informed me that he recently examined the body of a boy of ten or twelve years of age, who had been knocked down and run over by a stage wheel. The boy lived an hour after receiving the injury, and appeared to die from internal hæmorrhage. On opening the body, the destructive injury appeared to be a *fracture of the liver* through its thickest part. The spine had received no especial hurt. J. D. G.

millet seed, to that of peas, of the same nature as those existing in the sac, but rather firmer.

The kidneys were very large and appeared much diseased.

The subject of the preceding examination, came under medical care in May, 1828, she was then labouring under the usual symptoms of ascites; abdomen very much distended. In June she was tapped, and twenty-seven pints of water removed. She was afterwards tapped seven times, the last three times the sac contained thirty pints of albuminous serum; in fact, it was always much more so than we generally perceive it.

There was one circumstance which the examination explained, which was, that, although in the latter tappings the cicatrix would open, and water be discharged for six or eight days, yet there never appeared any tendency to peritoneal inflammation.

—

Extirpation of Cancer of the Uterus, by J. P. Warren, M. D. Professor of Anatomy and Surgery, Harvard University.—"May 5th, 1829. Mrs. L. S., of S. æt. 38, somewhat more than eight months since, began to notice uncommon feelings in some of the pelvic organs,—pains extending from the uterus, as she supposed, to the right hip and down the right thigh. Not long after this she had more discharge than usual from the vagina, which, from her description, must have been purely transparent mucus. In about four weeks the discharge began to change in its character, appearing somewhat bloody; its quantity increased in the mean time, and pains were sometimes severe in the small of the back and in the right groin and thigh. She felt herself failing in strength and activity.

"On examination at the hospital, the whole neck of the uterus was found thickened and tender; the *fungus* was connected to the right side of the neck of the uterus and to the vagina for some distance; considerable hæmorrhage was caused by examination. She has had ten children,—the last now three years old, and nothing unusual occurred at its birth,—and has borne them with a great degree of ease. General health has ever been unusually good till the last eight or ten months. She is now pale, lips rather exsanguineous, eyes sunken, and the whole countenance expressive of great anxiety. Appetite various and capricious; pulse small and feeble.

12*th*.—Consulting surgeons assembled to-day, and after making a careful examination, advised to an operation, as being the only *alternative* that promised the slightest prospect of saving life.

"13*th*.—The patient, after being fully apprized of the *danger* and *uncertainty* of an operation, was left to consult her own feelings, and submit or not as she chose.

"14*th*.—Patient chose to undergo the operation, which was performed to-day at 11, A. M. by Dr. Warren, in the following manner:—The patient was placed upon the edge of the operating table, having her head and shoulders considerably elevated, and supported by pillows: her legs were flexed, knees separated as far as they could be without producing too much uneasiness, and firmly supported. All things being now ready, the operator proceeded to dilate the external organs, as the *first step* in the operation: this being fairly accomplished, he then introduced into the vagina the two first fingers of the left hand, which were to serve in directing a *pointed hook* which was introduced with the right, and with which was now transfixed the neck of the uterus. Having proceeded thus far in the operation, a gradual force was applied for the purpose of dragging the uterus downward into view. The uterus being drawn down as far as seemed practicable, the operator retained it in this position, and with a common scalpel in the right hand, made a circular incision round the neck of the organ, removing with it about half the body and a portion of the diseased vagina. Just as he was making the last incision to complete this part of the operation, there was a tremendous gush of arterial blood, but the hæmorrhage soon moderated. The whole hand being now introduced, some portions of the dis-

eased part were found remaining; these were removed with a hook and pair of tonsil scissors. No opening could be found through the peritoneum or bladder; the latter organ sunk into the vagina so as to be distinctly seen. The operation now completed, a sponge was placed in the vagina, and the patient removed to her ward.

"After she was here, she continued almost in a state of syncope for two or three hours, after which there was considerable reaction. Pulse 100, and sufficiently full: had some colour in the face. At 10, P. M. pulse nearly as before; rather thirsty; did not complain of great weakness; said she had a frequent desire to void urine, and believed she had passed some, two or three times since the operation. An examination was made, and the sponge protruding from the external organs was saturated with urine. A catheter was passed into the bladder, but the organ was empty. Ordered gruel and diluent drinks; if faint and low, stimulants and cordials."

17*th.*—The patient gradually sunk, and died this morning at 8 P. M.

"18*th.*—*Post mortem Examination*, by Dr. Warren, twenty-four hours after death, in company with Dr. Channing and the house physicians, Parker and Gould, &c. The abdomen was opened. The serous coat at the upper part of this cavity was very slightly inflamed; toward the pelvis the inflammation was severe. No effusion of lymph was discovered, nor any step toward adhesion in any of the parts. Peritoneum, in the neighbourhood of the uterus and covering the bladder, considerably inflamed, but not sufficiently to produce death. All the uterus, except the fundus, was removed: this was perfectly free from the disease, no portion of which could be found remaining.

"This is the first operation for removing cancer of the uterus which has been practised here; and, though not successful in its termination, it warrants the belief that this very dangerous and terrible operation may succeed. This patient did not die of inflammation, nor gangrene, or lesion of the peritoneum, but probably from the effects of the bleeding; yet she survived this for three days, and had she not been greatly exhausted before the operation by the pain of her disease, and the debilitating discharges accompanying it, she would undoubtedly have recovered. The operation should be done at as early a period of the disease as possible."—*Boston Med. and Surg. Journ. June 23d*, 1829.

—

Operation for Artificial Urethra.—Two cases in which the operations for artificial urethra was successfully performed by Dr. Warren, at the Massachusetts General Hospital, are related in the *Boston Medical and Surgical Journal*, of July last.

—

Case of Paralysis from Fracture, in which a part of the Spinous Processes of two Vertebræ, half of the third, and the whole of the fourth were removed by an operation, with partial success. By Alban G. Smith, M. D. of Danville, Kentucky.—Some of the particulars of this case are related in the *North American Medical and Surgical Journal.* When a full account is published, we shall notice the most interesting circumstances.

—

Anatomico-Surgical Drawings and Descriptions of all Surgical Operations, according to the most approved methods. By L. J. von Bierkowsky.—This valuable work, of which a favourable notice will be found in our first volume, we are happy to announce is about to be republished by Messrs. Carvills of New York. The text, which forms two volumes octavo, will be translated by a gentleman of talents, who promises to make many valuable additions to the original. The plates, consisting of fifty-eight, of large folio size, contain five hundred and seventy drawings, exhibiting the parts interested in operations, in their natural position and size, and representing the stages of each operation, also delineations of many morbid affections. A new edition of this book is now in the press in Berlin, and the American publishers having made arrangements to receive a sufficient number of copies of the plates, they will be enabled to

furnish the work at a price which will put it within the reach of almost every surgeon. Subscription price until the 1st of November next, $30.

—

Addresses by J. D. Godman, M. D.—Our ingenious and talented colleague, Dr. Godman, whose ill health has compelled him to retire from the active duties of his profession, has employed part of his leisure moments in preparing for the press some of the addresses delivered by him to classes in the different institutions with which he has been connected. These addresses form a neat octavo volume, and may be procured of Messrs. Carey, Lea & Carey, or of any of the agents of this Journal.

—

A Treatise on Pathological Anatomy, by W. E. Horner, M. D. Adjunct Professor of Anatomy, will be published in a few weeks, by Messrs. Carey, Lea & Carey.

—

Edwards's and Vavasseur's Materia Medica and Pharmacy; translated by J. Togno, M. D. & E. Durand.—In the press, and speedily will be published by Carey, Lea, & Carey, Materia Medica and Pharmacy, by H. M. Edwards, M. D. and P. Vavasseur, M. D. comprising a concise description of the articles used in medicine: their physical and chemical properties; the botanical characters of the medicinal plants; the formulæ for the principal officinal preparations of the American, Parisian, Dublin, Edinburgh, &c. pharmacopœias; with observations on the proper mode of combining and administering remedies. Translated from the French, with numerous additions and corrections, and adapted to the practice of medicine and the art of pharmacy in the United States. By Joseph Togno, M. D. member of the Philad. Med. Society, and E. Durand, member of the Philadelphia College of Pharmacy.

NECROLOGY.

Died in Boston, March 27th, 1829, John Gorham, M. D. aged forty-six, one of the principal physicians in that place. He was born in Boston in the year 1783, and graduated at Harvard University in 1801, at the early age of eighteen. He studied medicine with the late Dr. Warren, and, after visiting some of the principal schools and hospitals in Europe, entered upon the practice of his profession in his native place in 1806. In 1809 he was chosen professor of chemistry in the Medical School of the University at Cambridge, which office he retained till the year 1827, when the labours of an increasing practice obliged him to resign it. His last illness, a pleurisy, was short, and of great violence. He survived his attack only four days.

Dr. Gorham did not acquire business rapidly. His progress to professional eminence was slow, but sure; and not many physicians within our knowledge have ever been more entirely beloved and confided in by their patients. There was an original kindness of heart constantly manifested in his countenance and manner, which insensibly, but surely won upon the affections of those around him; so that most of those who employed him as a physician, also valued and loved him as a man and a friend. The same qualities, combined with a high and honourable professional feeling, peculiarly endeared him to those associated with him in the same pursuits. Probably few physicians have ever been in practice for twenty-four years who have encountered so few of the unpleasant circumstances which arise out of professional competition and jealousy. All wished him well, for he wished well to all others.

In the acquisition of business, Dr. Gorham owed little to patronage, or to any other extrinsic circumstances. The reputation and practice which he obtained, he fairly earned by faithful and unremitting attention. He began among the poor, and worked his way into the highest circles of society. But to the end of his life, prompted by his natural benevolence of disposition, he visited a

great number of patients gratuitously. He had gone through a larger amount of professional labour than most practitioners, and was ready to undergo fatigue and exposure at any time, and to any extent. Probably this disregard of his own health and convenience may have contributed to his premature death; for, although his last sickness was sudden and violent, his health had obviously been less excellent than usual for several preceding months.

His death was felt as a public misfortune by all classes of society, as was evinced by the concourse which attended to pay the last tribute of respect to his remains. At the request of the Boston Medical Association, the funeral services took place in the church in which he had usually worshipped, and an address, commemorative of his life and character, was delivered by his friend and former colleague, Dr. Jackson. J. W.

—

Died at New York, April 24th, 1829, Frederick Gore King, M. D. in the 28th year of his age. In addition to this simple enunciation of the death of a much lamented friend, there only remains the melancholy task of recording on the pages of the Journal, a feeble memorial of the professional attainments, private worth, and endearing qualities of him who has been thus prematurely removed from among us.

Dr. King, the youngest son of the late Rufus King, was born in England, in the year 1801, during the period in which his father was minister to that country. He came with his father's family to the United States when very young, and immediately commenced his education, pursuing his studies with zeal and ability, and evincing the possession of no ordinary talents. He entered Cambridge College, Massachusetts, with great credit, and at the completion of his academic course, left it with increased reputation. He now returned to New York, and commenced the study of medicine under the direction of the late Dr. Post; he early evinced a partiality for the study of anatomy, and he pursued it with corresponding zeal and success. At his graduation he defended an inaugural thesis on Neurology, a part of which was published in the second number of the third volume of the New York Medical and Physical Journal; this essay, which in its historical sketch exhibits great research and familiarity with the ancient writers in medicine, was but a precursor of a greater work on the same subject, which it was his intention to have published, and from which much valuable information might have justly been anticipated. After the attainment of his medical doctorate, he married the daughter of his preceptor, a mutual attachment having subsisted during the period of his studies. A brilliant career now opened upon him, and he entered upon it with a zeal and enthusiasm that held forth a certainty of the highest professional distinction. He had hardly commenced, before he was called upon, in the double capacity of brother and physician, to accompany his brother's wife to the Havanna. After a short absence he returned to New York, from whence he was again summoned, to proceed as speedily as possible to England, to accompany home his venerable father, whose enfeebled constitution had sunk under the accumulated privations and difficulties of a mission to England. On his return he prepared again to engage in professional occupations, when he was required a third time to cross the Atlantic, as professional adviser to his wife's sister, whose health required a winter's residence in Italy. The melancholy termination of this visit to the lady, whose death took place soon after her arrival in Italy, left him at liberty to prosecute his travels in Europe. He visited different parts of Italy, examining every thing worthy of observation in the arts and sciences generally, as well as enriching his mind with stores of professional knowledge. He visited France, and during his stay at Paris, enjoyed the greatest opportunities of improving himself in his favourite study of anatomy. He here added to his library a valuable collection of French authors on the different departments of medical science. In the fall of 1828 he returned to New York and resumed the practice of medicine. During the severe epidemic fever which visited the neighbouring country during that season, he attended the family of his elder brother, then

residing at Jamaica, Long Island, and there contracted the disease, from the effects of which he seems never to have entirely recovered; it aggravated a pulmonary attack, which he suffered when in Italy. During the succeeding winter he was obliged to confine himself to the house the greater portion of the time, harassed by severe cough; this continued without much intermission, until the month of March, when he was attacked with hæmoptoe. His friends, which included a numerous and extensive circle, now became seriously anxious about him: every exertion that domestic or fraternal solicitude, or the highest professional aid could suggest, was faithfully tried, to arrest the ravages of his fatal malady; they proved of no avail, but to afford a melancholy consolation to his afflicted family, of having rendered him all the assistance that human means could afford. For a short time after the cessation of the hæmorrhage, strong hopes were entertained that his naturally vigorous constitution would triumph over the disease; these hopes were of short duration, no material improvement resulted, and the disease proceeded with steady and rapid progress to a fatal termination. During his illness, eager inquiries were constantly made, and an anxiety pervaded the community to obtain intelligence of the state of his health.

Dr. King was early distinguished for quickness of apprehension, and for the great facility with which he acquired and retained every subject to which he devoted his attention. As a public teacher he gave promise of the highest excellence, his voice was clear and full, his manner grave and impressive, and his enunciation slow and distinct; he was remarkable for the openness and frankness of his disposition, for the kindness and urbanity with which he received all who approached him; these qualities greatly endeared him to the whole class of medical pupils who came under his instruction, whilst demonstrator to his father-in-law, Dr. Post. In the discharge of this office he was always willing and anxious to afford them every facility in his power in the prosecution of their studies.

In all the domestic relations, he was without reproach. A love of science generally, but particularly an ardent desire to improve that to which he had devoted his time and attention, distinguished his short professional career: his mind was matured and ripe for all the honours of his profession, which his premature death alone prevented his attaining. His countenance was noble and striking, his eyes full and intelligent, and few faces were more strongly marked with traces of genius and talent; it was the index of a heart where resided every kind and generous feeling.

His sympathy with the sufferings of his patient, and his anxiety to relieve them, the mildness of his manners, and the kindness and benevolence of his disposition will be long remembered by those who came under his professional care. Though so early removed, he has not lived in vain, his example yet remains to stimulate our medical youth who are pressing forward in the narrow path of high and honourable distinction.

Dr. King was among the first selected by the Athenæum to give popular lectures; this duty he discharged the first year by delivering four lectures on phrenology; the succeeding year, being again appointed, he lectured on the structure of the human voice, in which he gave a highly interesting view of the science of music. The National Academy of Design, with the laudable view of affording instruction to young artists, selected Dr. King to give a course of lectures on anatomy: the members of that association affectionately remember the interest he took in their welfare, and the pupils the valuable instruction he imparted to them. After his graduation, he spent one year in the New York Hospital, as house surgeon, and was immediately after appointed demonstrator of anatomy to the College of Physicians and Surgeons, Dr. Post being at that time professor of that branch; during this period he gave a very instructive course of lectures on the preparations contained in the museum. J. M. P.

INDEX.

A.

Abercrombie on diseases of the stomach and bowels, 123, 485, 486, 487.
Abortion, 517.
Abscess, pneumo-hepatic, 213, 353.
Absorption, experiments on, 198, 203.
Acid, benzoic, in the grasses, 253.
——, hydriodic, 521.
——, phosphoric, in potash, 522.
——, pyroligneous, in sphacelus, 258.
——, sulphuric, injury from, 495, 515.
Alcali in the Eupatorium cannabium, 253.
Almonds, bitter, effects of, 218.
Aloetic acid, nature of, 252.
Alum, insufflation of, 500.
Alumine, sulphate of, in metallic colic, 225.
Amaurosis, 231.
Ammonia, sub-carbonate of, in venereal eruptions, 227.
Amputation without ligatures, 243.
Anaesthesia, without loss of motion, 477.
Anatomy, morbid, mode of preserving preparations of, 255.
Andrews on Lobelia inflata, 492.
Aneurism, 240, 243, 345.
——, Wardrop on, 166.
Angina tonsillaris, 500.
—— variolous, 500.
Aorta, obliteration of, 208.
Arendt's case of aneurism, 243.
Arterial system, general induration of, 208.
Ashwell on parturition, 145.
Asthma, 492.
Averill on removal of loose substances from knee-joint, 237
Ayre on dropsy, 444.

B.

Barbier's case of bone in the heart, 214.
Barcome's case of colica pictonum, 480.
Bardsley's case of dropsy, 497.
Barnet on a remarkable biceps muscle, 197.
Bartlett on medical institutions of Paris, 117.
Beclard's General Anatomy, 264.
Belladonna in phthisis pulmonalis, 228.
——, poisoning by, 249.
Bennerscheidt on iodine in the blood, 253.
Berton on iodine in consumption, 498.
Berzelius on sugar of liquorice, 252.
Biceps muscle, remarkable, 197.
Bichat, Henderson's Epitome of, 195.
Bierkowski's Surgery, 537.
Bigelow on reverse presentations, 285.
Birth, five children at, 476.
——, premature, 246, 247.
Bischoff's case of coma, 489.
Bladder, disease of, 217.
——, rupture of, 250.
Blandin's operation for laryngotomy, 243.
Bleeding in the cold stage of fever, 222.
Blisters, cotton as a dressing to, 260.
Blood, Davy on, 498.
Brain, diseases of, 54, 212.
Breast, diseases of, 453.
Breschet's case in which the uterus was wanting, 197.
Brome in scrofula and goitre, 225.
Bronchotomy, operation for, 235.
Broughton on the physiological effects of oxygen gas, 479.
Brouissaux's case of parencephalocele, 476.
Broussais de l'irritation et de la folie, 180.
——'s case of gastro-entero-cephalitis, 219.
—— case of paralysis, 228.
Brown on the molecules of bodies, 200.
Burns, flour as an application to, 499.
Busch, Mende and Ritger's Gemeinsame deutsche, &c. 193.

C.

Calculus, urinary, 333.
Callaghan on small-pox, 302.
Campano's case of neuralgia, 230.
Cancer of the uterus, 536.
Carditis, 340.
Cassibeer on Variolaria amera, 219.
Cassan sur uterus double, 452.
Cataract, 502, 503.
Chauffard's case of satyriasis, 491.
Chisholm, biographical memoir of, 394.
Chlorine in hydrophobia, 228, 500.
Cholera, Christie on, 463.
Christie on Cholera, 463.
Christison on dysentery, 215, 230.
——'s case of injury from sulphuric acid, 515.
——'s analysis of clothes, 516.
Cinchona, new species of, 219.
Circulation, 198, 206.
Clarke's case of tumour of the eye, 231.
Climate, on the supposed changes of, 255.
Cold affusions, 497.
Colica pictonum, 480.
Coma, case of, 489.
Commencements, 265, 268, 270, 271.
Convolvulus sepium, 219.
Cooper on diseases of the breast, 453.
Copaiba, mode of administering, 492.
Corrosive sublimate, death from, 521.
Cotton as a dressing to blisters, 260.
Couper's case of laryngitis, 235.
Coxe on wounds of the heart, 307.
Cribb's case of premature birth, 246.
Cruveilhier on belladonna in consumption, 228.
Cynanche laryngea, 357.
—— trachealis, 361.
—— tonsillaris, 492.

D.

Dakin on poison, 98.
Dance on hypertrophy of the brain, 212.
Daniell on dengue, 291.

Daniell on fractures, 330.
Davy on the blood, 498.
——'s case of pneumathorax, 495.
Delivery, 259.
Delvar's case of rupture of the bladder, 250.
Dengue, 62, 260, 291.
Dental Surgery, 196.
Diamond, new mode of making, 251, 521.
Dickinson's case of wound of the femoral artery, 69.
Dickson on dengue, 62.
Dieffenbach's case of cartilaginous degeneration of the stomach, 218.
———— on transfusion, 224, 226.
Drake on deleterious effects of opium, 257.
Dropsy, 444, 497, 535.
Duodenum, perforation of, 214.
Dunbar on the nervous system, 264.
Dupuytren on reduction of hernia, 509.
Dysentery, 215, 230.
Dysphagia, 483.

E.

Earle's case of compound fracture of the olecranon, 504.
——— case of hernia, 507.
Edwards and Vavasseur's Materia Medica, 538.
Eherman's case of strangulated hernia, 235.
Elephantiasis, Lisfranc's treatment of, 511.
Elliotson's case of derangement, 529.
Emphysema, 488.
Encyclopedie Dictionary, 443.
Endosmose and exosmose, 73.
Entropion, 297, 501.
Epidemic at Paris, 256.
Epilepsy, 96.
Ergot in uterine discharges, 497.
Erysipelas, 23, 92, 484.
Eupatorium cannabium, 253.
Eye, tumours of, 231.
——, fungous of, 232.
——, infirmary for the diseases of, 254, 255.
——, inversion of, 297, 501.

F.

Fahnestock's case of delivery, 259.
Femoral artery, wound of, 69, 233.
Fisher on small-pox, 196.
Fitch's Dental Surgery, 196.
Flourens on reunion of divided nerves, 200.
———— on the division of the semicircular canal, 201.
Fœtus, delivery of a, through the abdominal parietes, 512.
Fractures, 242, 330, 507.
Frictions of iodine, 240.
Fuch's new compound of silica and potash, 251.
Functions of the intestinal canal and liver in the fœtus, 480.

G.

Gall, disease of, 210.
Ganal's method of making diamonds, 251.
Gascoin's mode of preserving specimens of morbid anatomy, 255.
Gas, oxygen, physiological effects of, 479.
Gastric juice, 205.
Gastritis, 294.
Gastro-entero-cephalitis, 219.
Gland, thymus, absence of, 473.
Glionna's case of suppuration of the spleen, 214.
Glossitis, 533.
Glottis, œdema of, 500, 507.
Godman's Addresses, 538.
Goitre, brome in, 225.
Gondat's new species of cinchona, 219.
Gonorrhœa, 500.
Gorham, obituary of, 538.
Graefe on stricture of the urethra, 234.
——— on hydrocele, 240.
Gregory on small-pox, 526.
Guepinet on amaurosis, 231.
Guild's case of epilepsy, 96.

H.

Hall on Ergot, 497.
——'s case of preternatural membrane in the vagina, 260.
Hare's analysis of Swaim's panacea, 530.
——— on morphia and narcotin, 535.
Hasse on hydrocyanate of iron, 223.
Hausbrand's case of insanity, 216.
Hawkins's medical statistics, 452.
Hays's medical statistics, 260.
Hayward on prussic acid, 49.
Head, injury of, 258.
Heart, 214, 263, 807, 490, 491.
Hemiplegia, 477.
Hæmorrhages, 186, 244, 510.
Henderson's Epitome of Bichat, 195.
Herbst on cold affusions in poisoning with hydrocyanic acid, 497.
Hereau's Napoleon a St. Helene, 448.
Hering's experiments on circulation, secretion and absorption, 198.
Hernia, 235, 242, 301, 491, 509.
Heustis's case of injury of the head, 258.
——— on hernia cerebri, 315.
Hopton's case of glossitis, 533.
———— case of tracheotomy, 534.
Horner's cases, 54, 294, 530, 538.
Hydrocele, 240.
Hydrocephalus, 530.
Hydrocyanic acid, effects of cold affusion in poisoning with, 497.
Hydrorachitis, 100.
Hydrophobia, 228, 500.
Hypertrophy of the brain, 212.

I.

Intermittent fever, 225, 498.
Insanity, 216.
Intestinal canal and liver in the fœtus, functions of, 480.
Iron, hydrocyanate of, 223.
Itch, 225, 227.
Iodine, 240, 253, 492, 498, 521.

J.

Jackson's case of cynanche trachealis, 361.
———— case of entropion, 297.
Jahn's case of emphysema, 488.
Jemima on injection into the umbilical vein, 244.
Johnson's case of pneumathorax, 493.
Jolly on poisoning with belladonna, 249.
Josse on the treatment of fractures, 242.

Journal des Progres, 472.

K.

King on opium, 262.
—— obituary notice of, 539.
Knee joint, removal of loose substances from, 237.
Krimer's case of fatal error in the diagnosis of a tumour, 237.
Kuhn's Case of ossification of the vitreous humour, 502.

L.

Labour, difficult, 244.
Laennec on alum insufflations, 500.
Laryngitis, 235, 337.
Laryngotomy, 243, 534.
Larynx, needle in, 243.
Laxative of senna and prunes, 218.
Latour's Histoire des Hæmorrhages, 186.
Lee on the functions of the intestinal canal and liver in the fœtus, 484.
Leech bites, bleeding from, 224.
Lehman's meteorological observations, 370.
Leuret's case of paralysis, 218.
Levert on metallic ligatures, 17.
Liebeg on aloetic acid, 252.
Life, duration of, in Russia, 254.
Ligatures, Levert on, 17.
Lime, chloride of, in itch, 225.
———————— paralysis, 532.
Liquorice, sugar of, 252.
Lisfranc's wound of femoral artery, 233.
———— extirpation of a wen, 242.
———— reduction of luxation of five weeks duration, 242.
———— treatment of elephantiasis, 511.
Liston's case of lithotrite, 506.
Lithotritie, 239, 506.
Louis on Typhus Fever, 403.
Lugol on iodine in white swelling, 240.
Lungs, hernia of, 491.
Luxation of five weeks standing reduced, 242.

M.

Macaire-Princep on poisoning plants with their own products, 205.
Mania, suicidal and infanticidal, 514.
Mantel's report on midwifery, 244.
Marshall on application of flour to burns, 498.
Martinet on turpentine in neuralgiæ, 500.
Matter, ultimate particles of, 200, 201, 474.
Mauran's cancerous tumour of rectum, 511.
Medical Institutions of Paris, 117.
———— Society of New York, 194.
———— profession at St. Petersburgh, 254. 254.
———— Society of Philadelphia, 271.
Memoires de l'Academie Royale de Medecine, 169.
Mende's anomalous distribution of the vascular system, 197.
Menstruation in a child, 206.
Mercury in Swaim's panacea, 530.
Merrill on cotton as a dressing to blisters, 260.
Metallic colic, 225.
Meteorological observations, 371.
Midwifery, Mantel's report on, 244.
Midwifery, Naegele's report on, 245.
Molecules, ultimate, 200, 201, 474.
Mollina on aneurism of the carotid, 243.
Monstrosity, Tiedemann on, 206.
Morphium, Hare on, 535.
Montanceix on sulphate of alumine in metallic colic, 225.
Mott's memoir of Dr. Post, 264.
Mugna's case of dysphagia, 484.
Muller's case of delivery, 512.
Mussey on urinary calculus, 333.
Myology, Tusson's, 192.

N.

Naegele on absorption by the uterus, 244.
————'s report on labours, 245.
Napoleon a St. Helene, 448.
Narcotin, Hare on, 535.
Necrosis, 348.
Nerve of the tensor tympani, 198.
————'s, reunion of divided, 200.
Nervous system, Dunbar on, 264.
Neuman on hydriodate of potash in cynanche parotidea, 224.
Neuralgia facialis, 230, 500.
Nicholson on dengue, 260.

O.

Olecranon, compound fracture of, 504.
Opium, 257, 262.
Orr's case in which too drachms of sulphuric acid were swallowed, 495.
Osiander's case of difficult labour, 244.
Ouvrard's cases, 242, 246, 247, 248.

P.

Paralysis, 218, 228, 537.
Parencephalocele, 476.
Paris, epidemic at, 250.
————, Medical Institutions of, 117.
————, report of the council of health of, 528.
Pecchiolli's improvement in lithotritie, 239.
Peirce's case of perforation of the stomach, 305.
Pelletan's new mode of using iodine, 492.
Pelvis, sinuses in, 505.
Pericardium, dropsy of, 484.
Pharmacy, Transactions of College of, 454.
Phrenology, 529.
Phthisis pulmonalis, 228, 498.
Placenta, expulsion of, three months after delivery, 511.
———————— hæmorrhage from retention of, 244.
Pneumathorax, 493, 495.
Poison, cutaneous disease from, 98.
Poisoning plants by their own products, 205.
———————— by belladonna, 249.
———————— with nux vomica, 513.
Pollen of plants, 201.
Pommer on the gastric juice, 205.
Post, memoir of, 264
Potash, hydriodate of, in cynanche parotideæ, 224.
Pourche on brome in scrofula and goitre, 225.
Presentations, reverse, means of affording respiration in, 285.
———————— hip, 512, 513.
Prussic acid, Hayward on, 49.
Psoriasis inveterata, 227.

Q.
Quarrier on feigned diseases of the heart, 529.
R.
Rainy on recurrent laryngeal nerve, 198.
Randal's case of gun-shot wound of the heart, 263.
Rectum, cancerous tumour of, 511.
Recurrent laryngeal nerve, 198.
Regnault du Degree de Competence des Medecins, 189.
Reid's case of anaesthesia, 477.
Retina, anterior termination of, 474.
Reuss on the circulation in the capillary system, 206.
Rhind on Intestinal Worms, 176.
Rhubarb plant, 492.
Ridalfo's mode of arresting hæmorrhage from leech-bites, 224.
Righini on alkaline principle in the eupatorium canabium, 253.
Robert's case of perforation of the duodenum, 214.
Russia, duration of life in, 254.
———, Maison des Enfans Trouvees, 254.
S.
Satyriasis, 491.
Schmidt's treatment of tænia, 229.
Schouw on change of climate, 255.
Scrofula, use of brome in, 225.
Secale cornutum, 497.
Secretion, experiments on, 198.
Semicircular canal, effects of the division of, 201.
Semmola and Schœnberg on chlorine in hydrophobia, 228.
Senna and prunes, 218.
Senses, abolition of, 202.
Sewall on turpentine in hernia, 301.
Silica and potash, new compound of, 251.
Silver, nitrate of, as a test of animal matter, 522.
———, found in the viscera, 479.
Small-pox, Fisher on, 196.
———, Gregory on, 526.
———, Callaghan on, 302.
Somervail on Erysipelas, 92.
——— on muriate of lime in paralysis, 532.
Speranza on endermic treatment of intermittent fever, 496.
Spleen, suppuration of, 214.
Statistics, 253, 254, 260, 458, 528.
Stengel's case of abolition of the senses, 202.
Stokes on bleeding in the cold stage, 225.
Stomach, diseases of, 215, 218, 305, 485, 486, 487.
Stratford on inversion of the eyelids, 502.
Superfœtation, 477.
Swaim's panacea, mercury detected in, 530.
Syme's case of aneurism, 240.
——— on sinuses in the pelvis, 505.
Symons on pyroligneous acid in sphacelus, &c. 258.
T.
Tænia, new mode of treating, 229.
Temple on hydrorachitis, 100.
Tensor tympani, nerve of, 198.
Thevison's case of diseased bladder, 217.
Thornton's case of retention of placenta, 511.
Typhus fever, 403.
Tiedemann on monstrosity, 206.
Toby's case of prolapsus uteri, 532.
Togno on endosmose and exosmose, 73.
Tracheotomy, 507, 534.
Tranfusion, 224, 226.
Tumour, fatal error in diagnosis of, 237.
Turpentine in hernia, 301.
——— in neuralgiæ, 500.
Twining's case of fungous of the eye, 232.
U.
Urethra, stricture of, 234, 237.
———, artificial, operation for, 537.
Uterus, case in which it was wanting, 197.
———, absorption by, 244.
———, retroversion of, 246.
———, double, Cassan on, 452.
———, double, with superfœtation, 477.
———, prolapsus, 532.
———, cancer of, 536.
V.
Vaccine institution, 272.
Vagina, unnatural membrane in, 260.
Vagitus uterinus, 247, 248.
Variolaria amera, 219.
Variola, Callaghan on, 302.
———, Fisher on, 196.
Vascular system, anomalous distribution of, 197.
Vein, umbilical, inflammation of, 484.
Vitreous humour, ossification of, 502.
Vogel on benzoic acid in the grasses, 253.
W.
Wardrop on aneurism, 166.
Ward's cases of death from corrosive sublimate, 520.
Warren's case of cancer uteri, 536.
——— cases of artificial urethra, 537.
Watson's case of cynanche trachealis, 492.
Wedemeyer's case in which silver was found in the viscera, 479.
Weis's case of five children at a birth, 476.
Wen, extirpation of, 242.
Wendelstrom's case of cataract, 502.
Western Journal of the Medical and Physical Sciences, 264.
Westrumb on cutaneous absorption, 203.
White swelling, use of iodine in, 240.
Wood's case of dropsy of pericardium, 484.
Wright's reports, 23, 337.
Y.
Yellow fever, 522.
Z.
Zeuchner on extraction of cataract, 503.
Zonula zinii, 473.